

**ENERGY SAVINGS  
OPPORTUNITY SURVEY  
(ESOS)  
OF  
SCHOFIELD BARRACKS  
FAMILY HOUSING  
AREAS  
A, D, E, F, I, J, K-1**

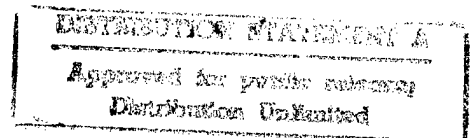
**U.S. ARMY CONTRACT NO. DACA83-89-D-0073  
FINAL SUBMITTAL**

**VOLUME II**

**DTIC QUALITY INSPECTED 2**

**PREPARED BY:  
CEDRIC D. O. CHONG AND ASSOCIATES, INC.  
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HONOLULU, HAWAII 96819**

**SEPTEMBER 9, 1992**



**19971017 169**

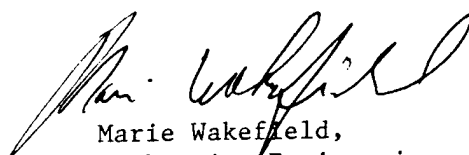


DEPARTMENT OF THE ARMY  
CONSTRUCTION ENGINEERING RESEARCH LABORATORIES, CORPS OF ENGINEERS  
P.O. BOX 9005  
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REPLY TO  
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Marie Wakefield,  
Librarian Engineering

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UNIT TYPE 20-II



Date: 1/9/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 425  
Building Type: 20-11  
Apartment: \_\_\_\_\_  
No. Bedrooms: 4  
Area: D  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: ALL DAY  
No. of Occupants: 7  
2  
Average No. of Showers/Day: 5  
Average No. of Laundry Loads/Week: 4  
Average No. of Times Dishwasher Used/Day: every other other day  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 2.0 ARCHITECTURAL

*Crawl space  
of ~ 2' under  
house*

### Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation *NONE*

*WOOD WALL*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.)

Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation

*WOOD ROOF*

*Asphalt Shingles*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 115 °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: Not visible pipes  
Insulation Thickness:       

e. Is Hot Water Circulated? ND

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

could not access  
pipes under house

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Laundry Room
- b. Areas Served Entire Unit
- c. Manufacturer and Model Hoyt Model FES-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.) E
- e. Type Heaters & Quantities: ✓
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 66 gal

- g. Heating Capacity 2250 W  
 h. Type Controls (Air, Steam, Electric) good  
 i. When Installed & Condition good  
 j. Heater Temperature Setting \_\_\_\_\_  
 k. Average Water Maintained Temperature \_\_\_\_\_  
 l. Temperature Differential (j) - (k) \_\_\_\_\_  
 m. Is Hot Water Supply Adequate y  
 n. Insulation Thickness None such  
 o. Insulation Material \_\_\_\_\_  
 p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_  
 2) Galons HW/Wash \_\_\_\_\_  
 3) Booster Heater Mfg/Mdl \_\_\_\_\_  
 4) Heating Source \_\_\_\_\_  
 5) Capacity \_\_\_\_\_  
 6) Electrical Data \_\_\_\_\_

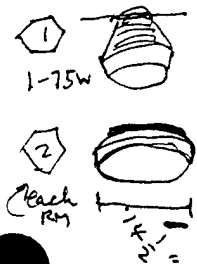
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_  
 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
 3) Gallons HW/Wash \_\_\_\_\_  
 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
101 Sk	2 l/ps	115°F	right after shower & wash.





⑫

AREA D 410, 405, 400, 395 SEE  
AREA E 310, 325, 330, 340  
SEE SITE PLAN SHEET (30) FOR LOC  
AREA I 712, 713, 720, 730  
SEE SITE PLAN SHEET (30) FOR LOCATION

Type 20-II

Date: 1/9/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 525

Building Type: 20-II

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 5

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 6

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*Same as unit 425*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*Same as unit 425*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

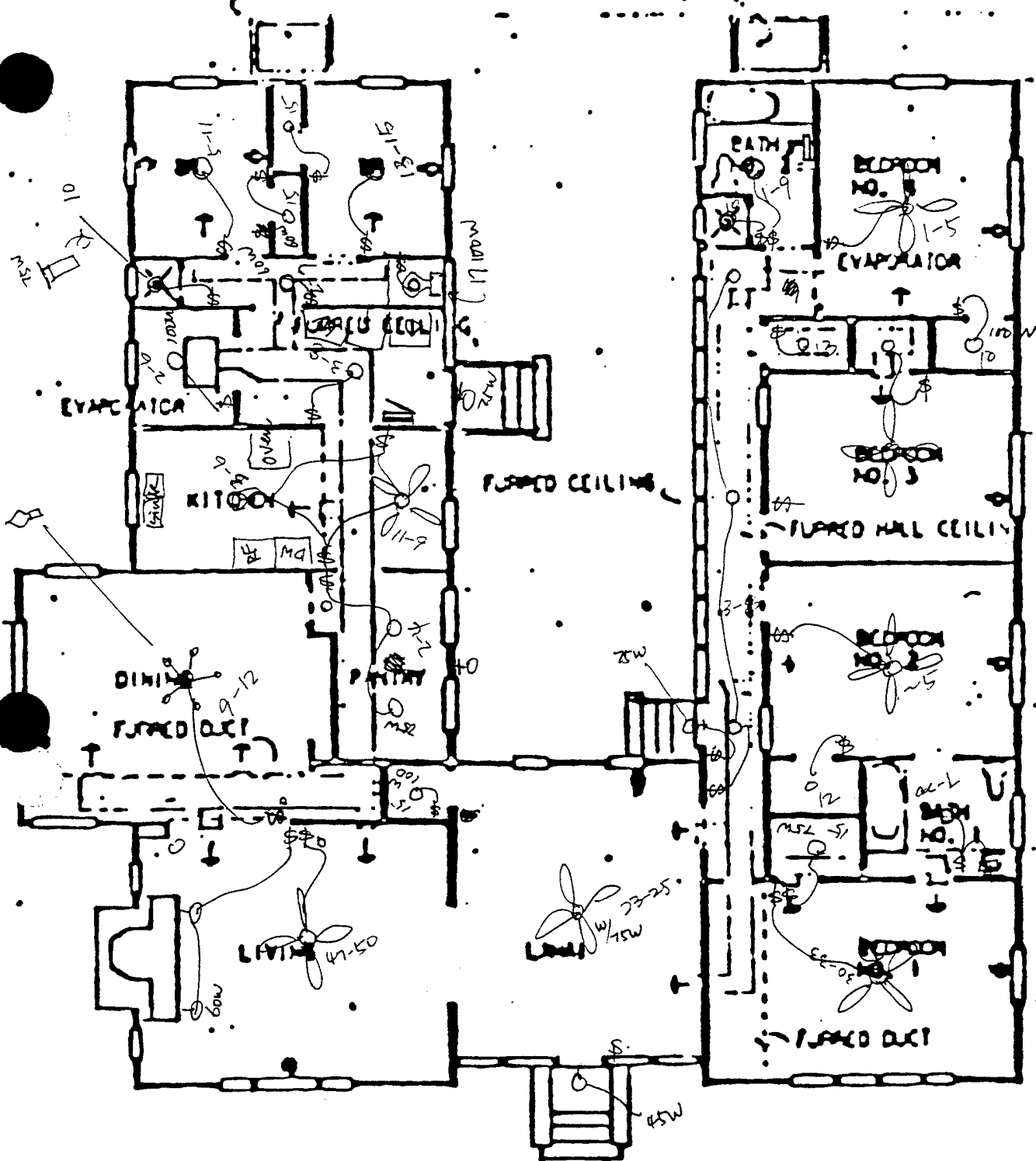
### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Washer Tub Sk	17 l / 10.5	120°F	
Bath No. 1 Tub	5 l / 10.5	122°F	
Shower	12 l / 10.5	115°F	



A.C. CONDENSER

A.C. CONDENSER



BUILDING NUMBERS

AREA B 418, 425, 432, 441, 448

AREA E 510, 525, 532, 542

SEE SITE PLAN SHEET (B) FOR LA

AREA I 712, 713, 724, 730

SEE SITE PLAN SHEET (B) FOR LOCATION

Type 20-II

Date: 1/9/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 701

Building Type: 20-T1

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: 1

Occupied Hours: Empty till 2pm

No. of Occupants: 6

Average No. of Showers/Day: 6

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*Same as unit 425*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*Same as  
Unit 425*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

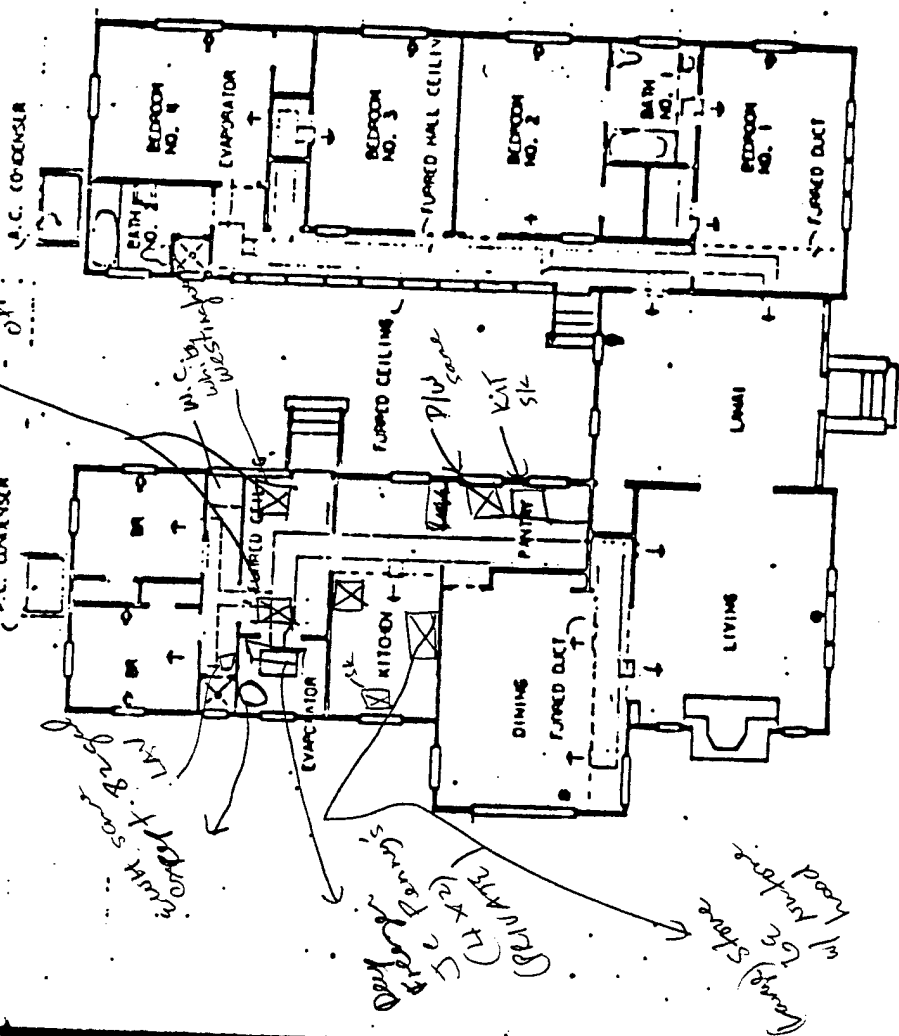
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub	42/105	119°F	
shower	32/105	118°F	



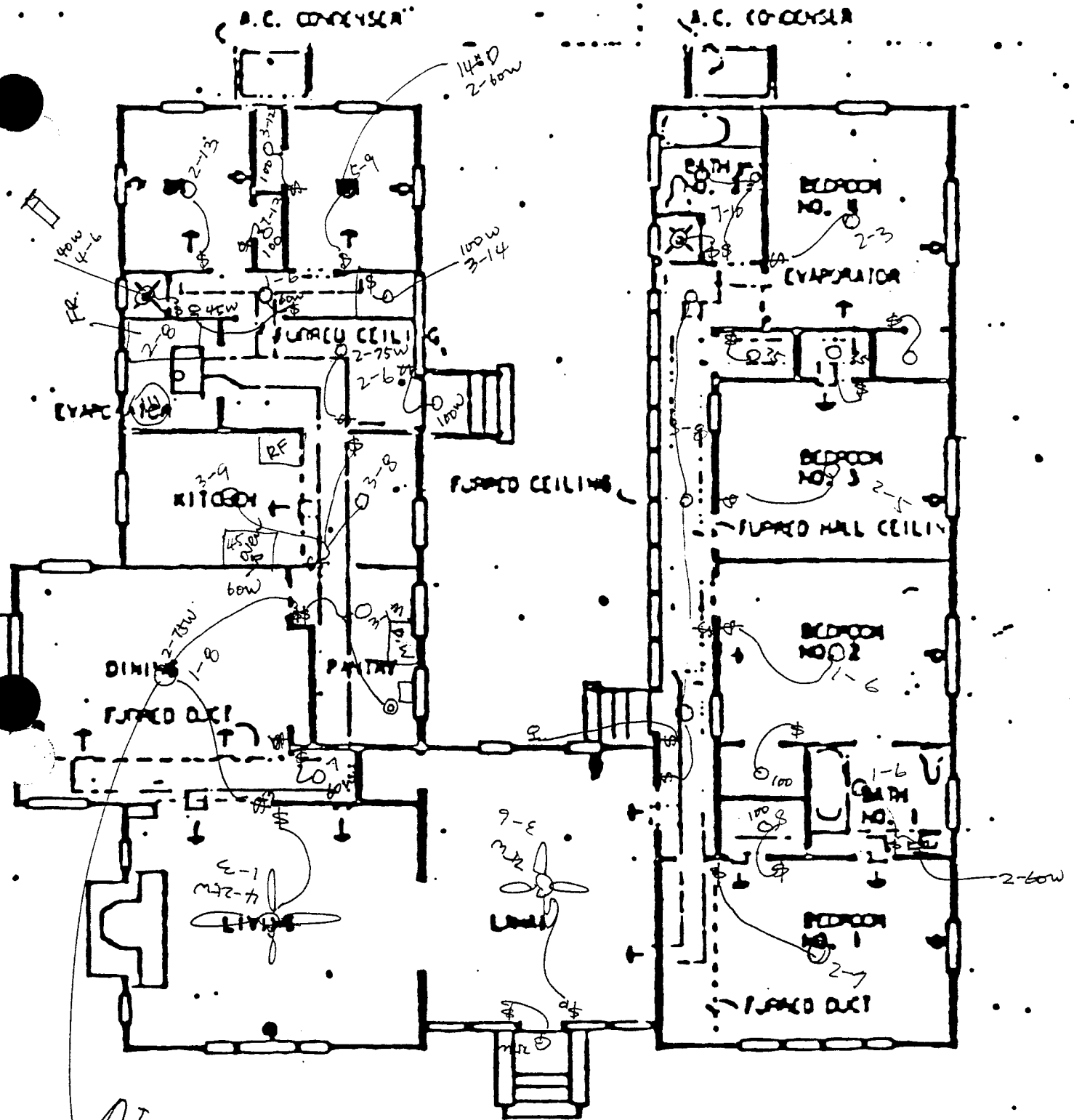
# 101



FLOOR PLAN  
SCALE 1/8" = 1'-0"

BUILDING NUMBER  
AREA D 814, 825, 836, 844, 852  
AREA E 818, 828, 838, 848  
SEE SITE PLAN SHEET 10 FOR LA  
AREA 1 712, 713, 724, 728  
SEE SITE PLAN SHEET 10 FOR LOCATION  
Type 20-II

REVISIONS				
FAMILY HOUSING				
BUDGETARY DATA FOR AIR CONDITIONING				
OFFICERS' QUARTERS - SCOTT'S BLVD				
FLOOR PLAN 10				
SCOTT'S BLVD				
U. S. ARMY ENGINEER DIVISION, P. O. BOX 100, WASHINGTON, D. C.				
LTC. GEORGE S. HARRIS				
MAY 1973				



# BUILDING NUMBER

AREA D 418, 425, 426, 427, 428

AREA E 518, 525, 526, 527

SEE SITE PLAN SHEET (B) FOR LOCATION

AREA I 712, 713, 714, 715

SEE SITE PLAN SHEET (B) FOR LOCATION

Type 20-II

Date: 1/9/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 712

Building Type: 20-11

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 7

Average No. of Showers/Day: 7

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

SAME AS 425

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

*same as 425*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

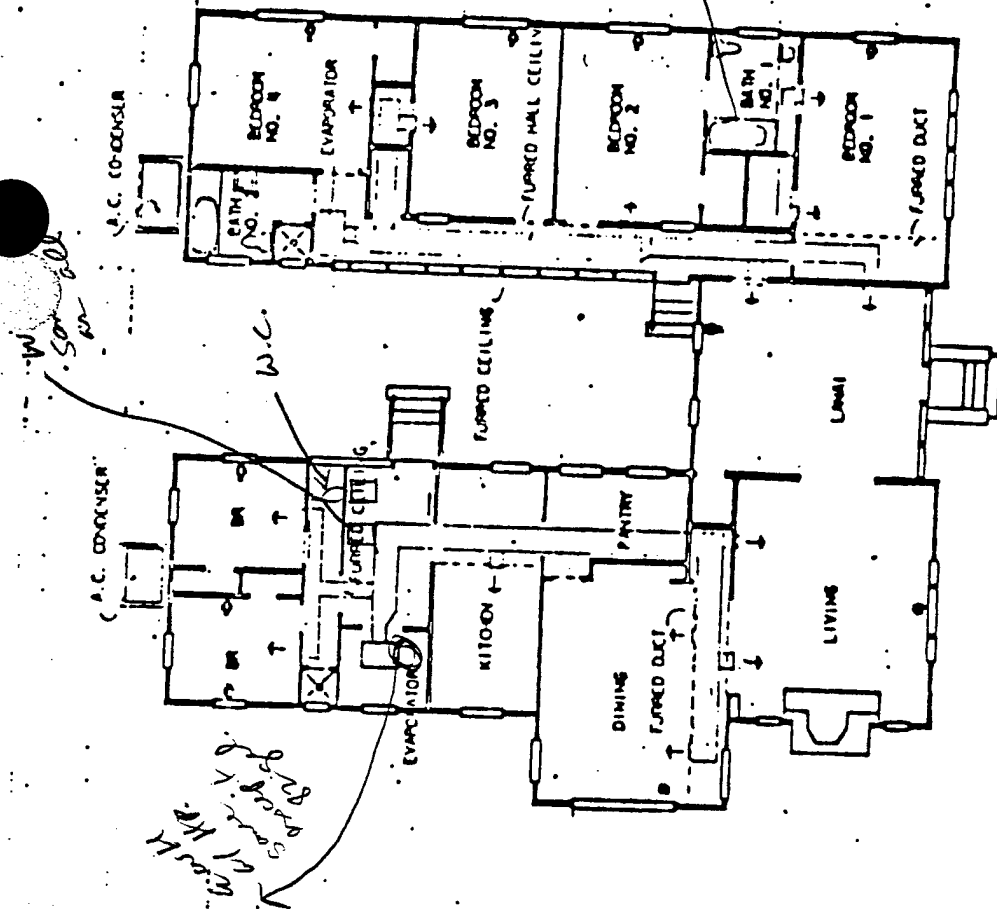
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
laundry tub	4.52/105	128°F	

#142-R

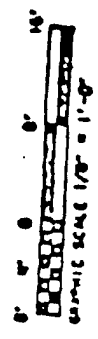


FLOOR PLAN  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS  
AREA B 814, 825, 834, 844, 854  
AREA E 540, 525, 534, 544  
SEE SITE PLAN SHEET 10 FOR LA  
AREA I 712, 713, 724, 734  
SEE SITE PLAN SHEET 10 FOR LOCATION

Type 20-II

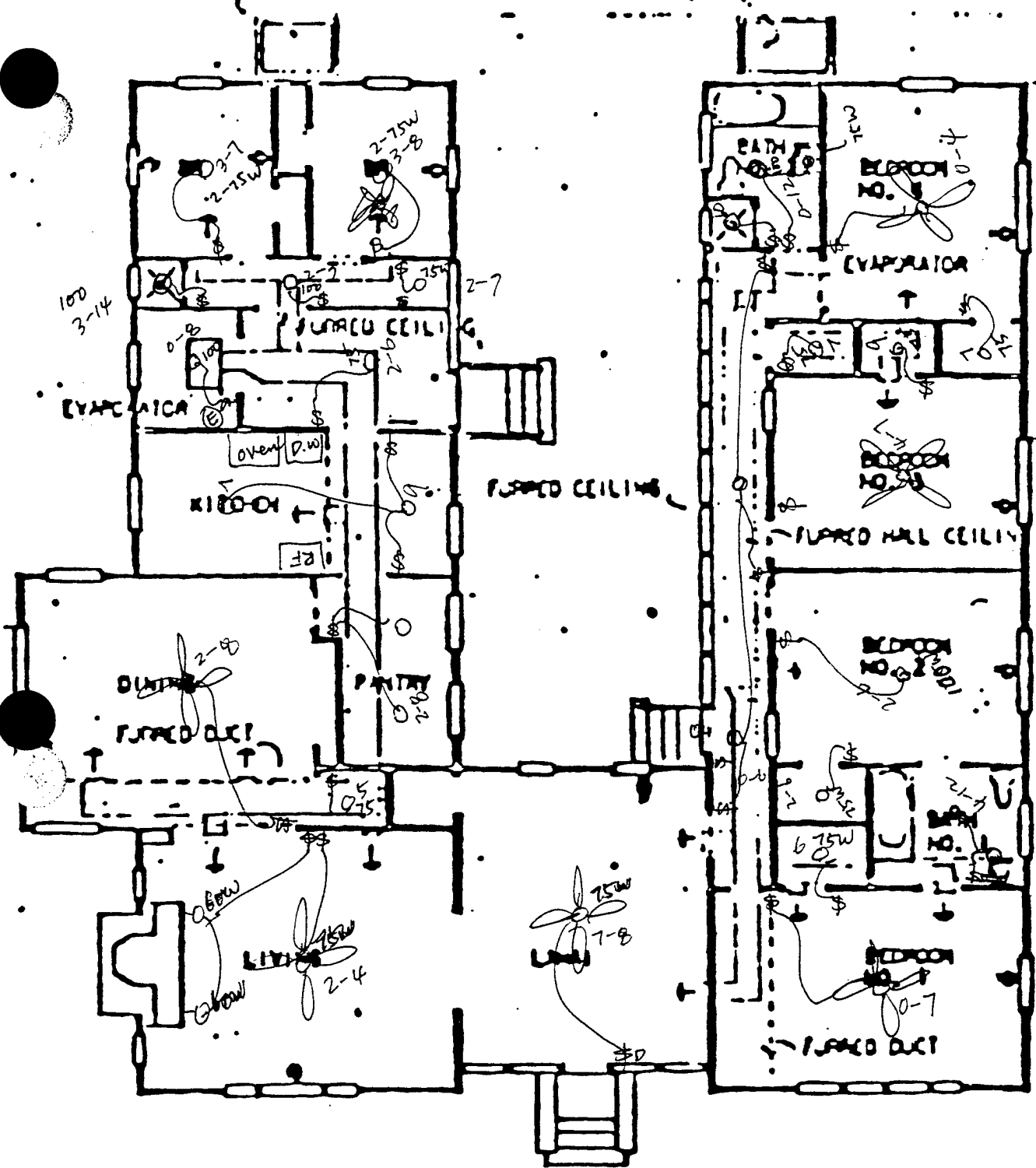
REVISIONS			
FAMILY HOUSING			
BUDGETARY DATA FOR AIR CONDITIONING			
OFFICERS' QUARTERS' SCHEDULE			
FLOOR PLAN 10			
SCHEMATIC DRAWINGS			
U. S. ARMY ENGINEER DIVISION, P. CORPS OF ENGINEERS			
HONOLULU, HAWAII			
DATE	DATE	DATE	DATE
10	25	23	07



MAY 1973

A.C. CONDENSER

A.C. CONDENSER



BUILDING NUMBERS

AREA B 418, 425, 426, 427, 428  
 AREA E 510, 525, 526, 527  
 SEE SITE PLAN SHEET (B) FOR LOCATION  
 AREA I 712, 713, 734, 736  
 SEE SITE PLAN SHEET (B) FOR LOCATION

712  
R

Type 20-II



UNIT TYPE 20-III

Date: 1/10/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 401

Building Type: 20 - III

Apartment: \_\_\_\_\_

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 5

Average No. of Showers/Day: 2 1/2

Average No. of Laundry Loads/Week: 6

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

2' crawl space  
under house

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Wood Wall \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Roof-Wood \_\_\_\_\_

Asphalt Shingle \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

Central Plant One System per Building  
Several Small Systems per Building  
Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 130 °F  
°F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:   
Insulation Thickness:

e. Is Hot Water Circulated? No

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Storage
- b. Areas Served Entire House
- c. Manufacturer and Model Hout Model FES-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.) E
- e. Type Heaters & Quantities
- 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 82

- g. Heating Capacity 2250 W  
 h. Type Controls (Air, Steam, Electric) E  
 i. When Installed & Condition Good  
 j. Heater Temperature Setting \_\_\_\_\_  
 k. Average Water Maintained Temperature \_\_\_\_\_  
 l. Temperature Differential (j) - (k) \_\_\_\_\_  
 m. Is Hot Water Supply Adequate \_\_\_\_\_  
 n. Insulation Thickness \_\_\_\_\_  
 o. Insulation Material \_\_\_\_\_  
 p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_  
 2) Galons HW/Wash \_\_\_\_\_  
 3) Booster Heater Mfg/Mdl \_\_\_\_\_  
 4) Heating Source \_\_\_\_\_  
 5) Capacity \_\_\_\_\_  
 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_  
 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
 3) Gallons HW/Wash \_\_\_\_\_  
 4) Electrical Data \_\_\_\_\_

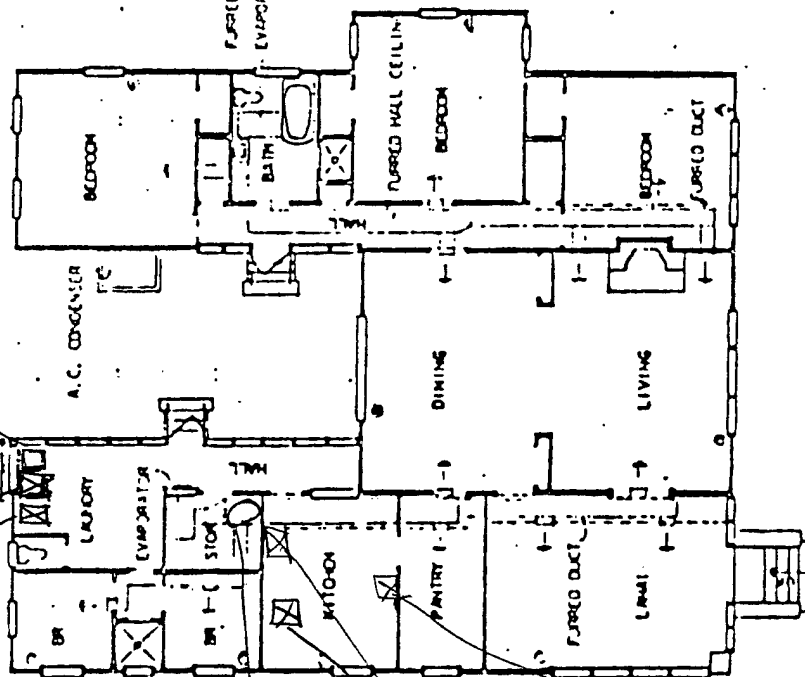
*see sketch*

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub	4.5 l/10s	128°F	
Hall Shower	2 l/10s	130°F	
Kit. sk	1 l/10s	128°F	
Bath tub	4 l/10s	130°F	
Bathroom Shower	3 l/10s	126°F	

36 in. Electric  
Washing Machine  
in Hallway  
Lumber  
Hub

#401



BUILDING NUMBERS

AREA D	401	402	403	404	405
	406	407	408	409	410
	411	412	413	414	415
	416	417	418	419	420
	421	422	423	424	425
	426	427	428	429	430
	431	432	433	434	435
	436	437	438	439	440
	441	442	443	444	445
	446	447	448	449	450

AREA E

501	502	503	504	505
506	507	508	509	510
511	512	513	514	515
516	517	518	519	520
521	522	523	524	525
526	527	528	529	530
531	532	533	534	535
536	537	538	539	540
541	542	543	544	545
546	547	548	549	550

AREA F

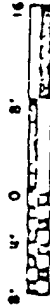
701	702	703	704	705	706
707	708	709	710	711	712
713	714	715	716	717	718
719	720	721	722	723	724
725	726	727	728	729	730
731	732	733	734	735	736
737	738	739	740	741	742
743	744	745	746	747	748
749	750	751	752	753	754
755	756	757	758	759	760

SEE SITE PLAN SHEET 31 32 33 34

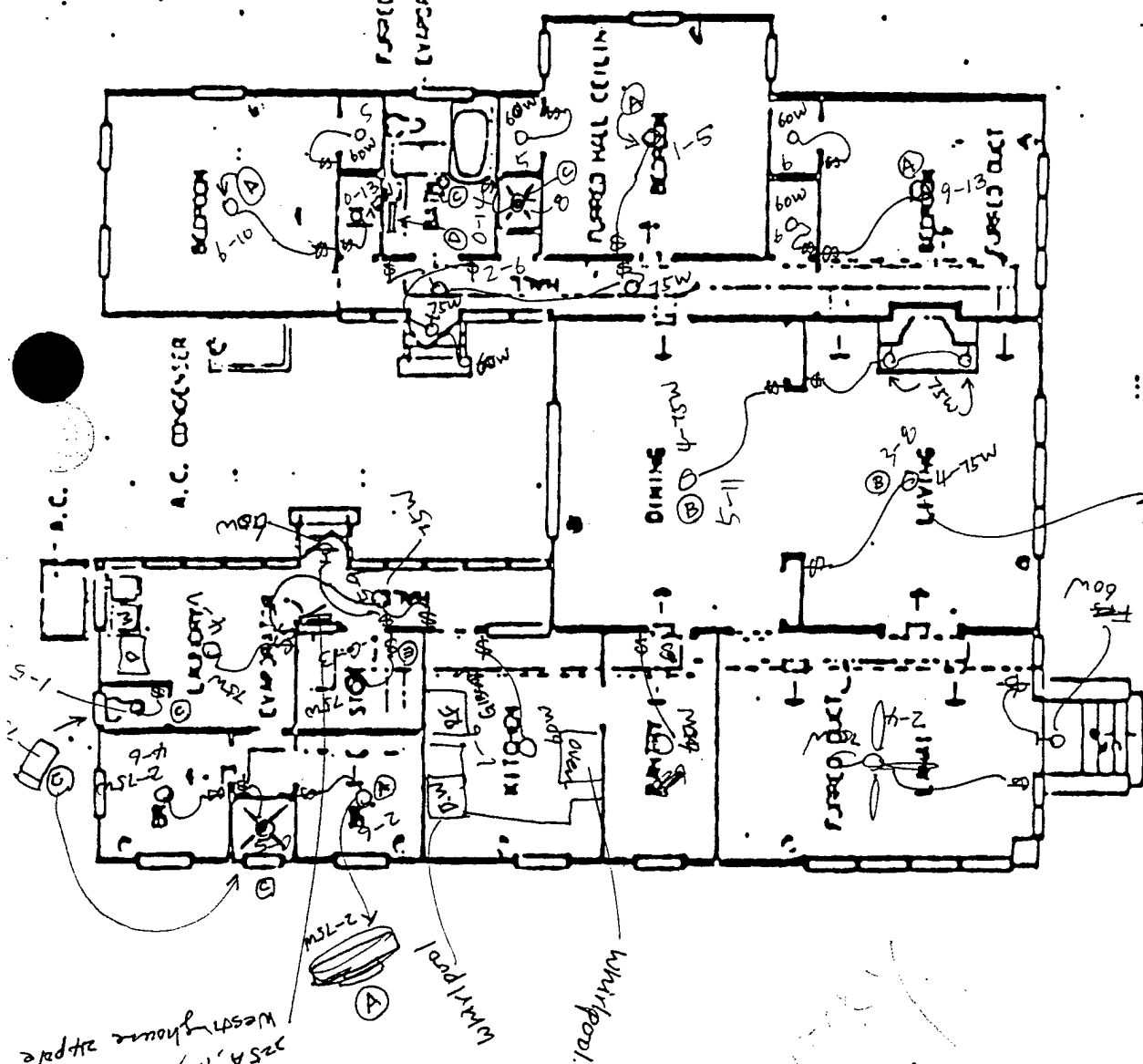
Type 20-III

FLOOR PLAN  
SCALE 1/8" = 1'-0"

REVISIONS	1
FAMILY HOUSING	
NOMINATING DATA FOR AIR CONDITIONING PROJECTS	
OFFICERS' QUARTERS CAMPFIELD AREA 0 E AND I	
FLOOR PLAN 3 B3	
TYPE 3	
SC-5 FIELD BARRACKS	
CAMP, HAWAII	
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN	
CORPS OF ENGINEERS	
HONOLULU, HAWAII	



107



FLOOR PLAN  
SCALE 1/8" = 1'-0"

1/10/90

Date: 1/10/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 415

Building Type: 20-111

Apartment: \_\_\_\_\_

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 3

Average No. of Times Dishwasher Used/Day: 1/week

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

*Same as unit 401*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*Same  
as 4.1*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: None  
Insulation Thickness:       

e. Is Hot Water Circulated? NO

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

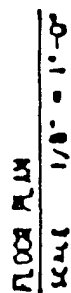
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub	62/105	117°F	
Bath Shower	12/105	118°F	





Date: 1/10/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 419

Building Type: 20-111

Apartment:       

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all day

No. of Occupants: 2

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 2

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*Same as 4.1*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area \_\_\_\_\_

Roof (Incl. Clg.)

Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area \_\_\_\_\_





- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

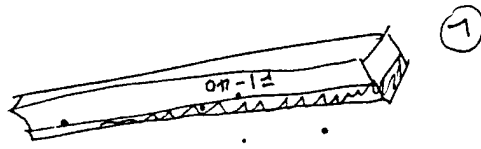
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub	4.0/10.5	126 F	
Bathroom Shower	1.5/10.5	120 F	

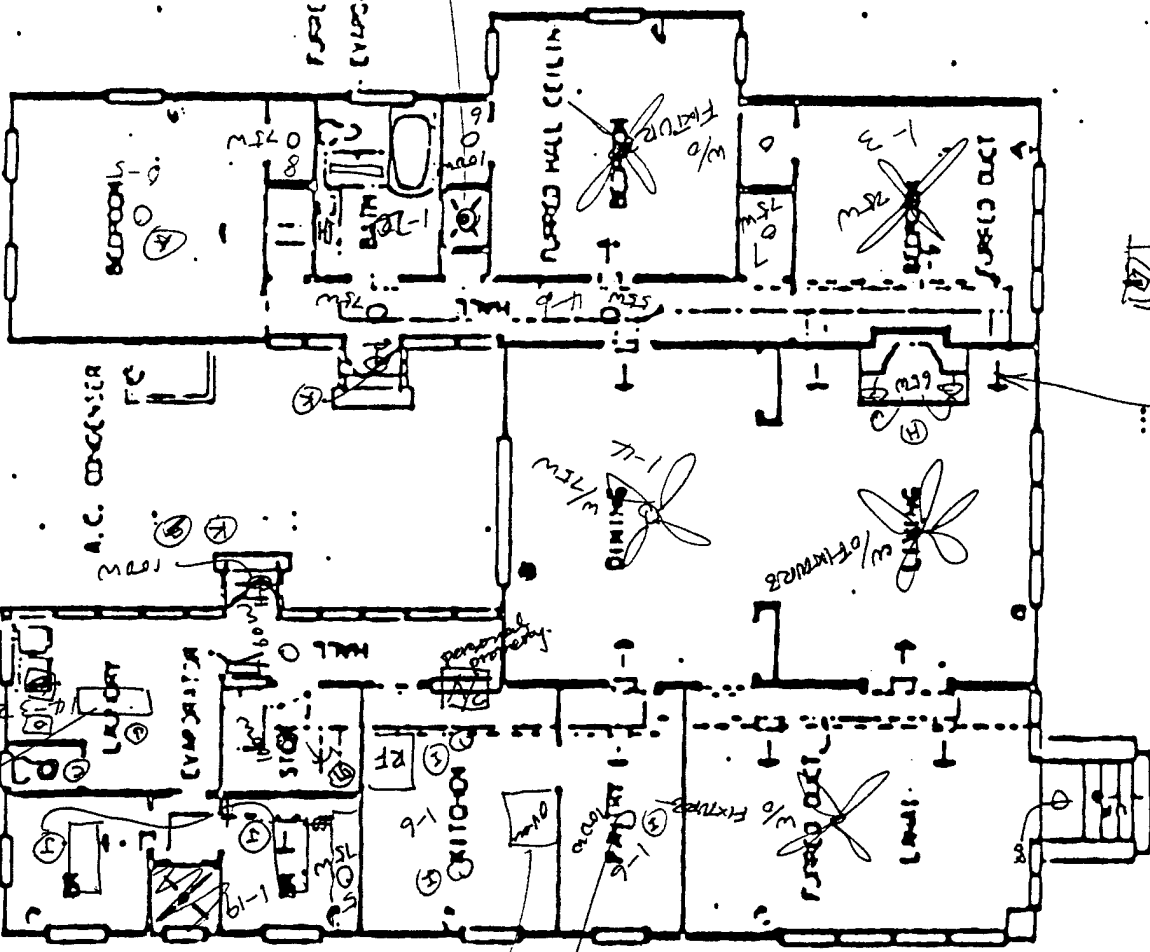


419

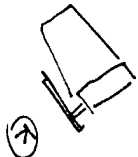
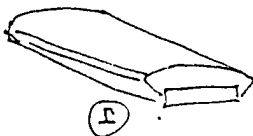


Heater lamp  
see photo

RETRACTABLE  
SHUTTER



A/c → Feeders



Date: 1/10/96  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 421

Building Type: 20-111

Apartment: \_\_\_\_\_

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 5

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as 401

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

same as 401

same as 401

same as 401

- same as 401

same as 401

- same as 401

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

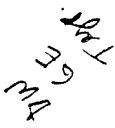
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Hall Shower	2.2/10.5	122° F	
Bath Tub	4.5/10.5	117 F	

#421

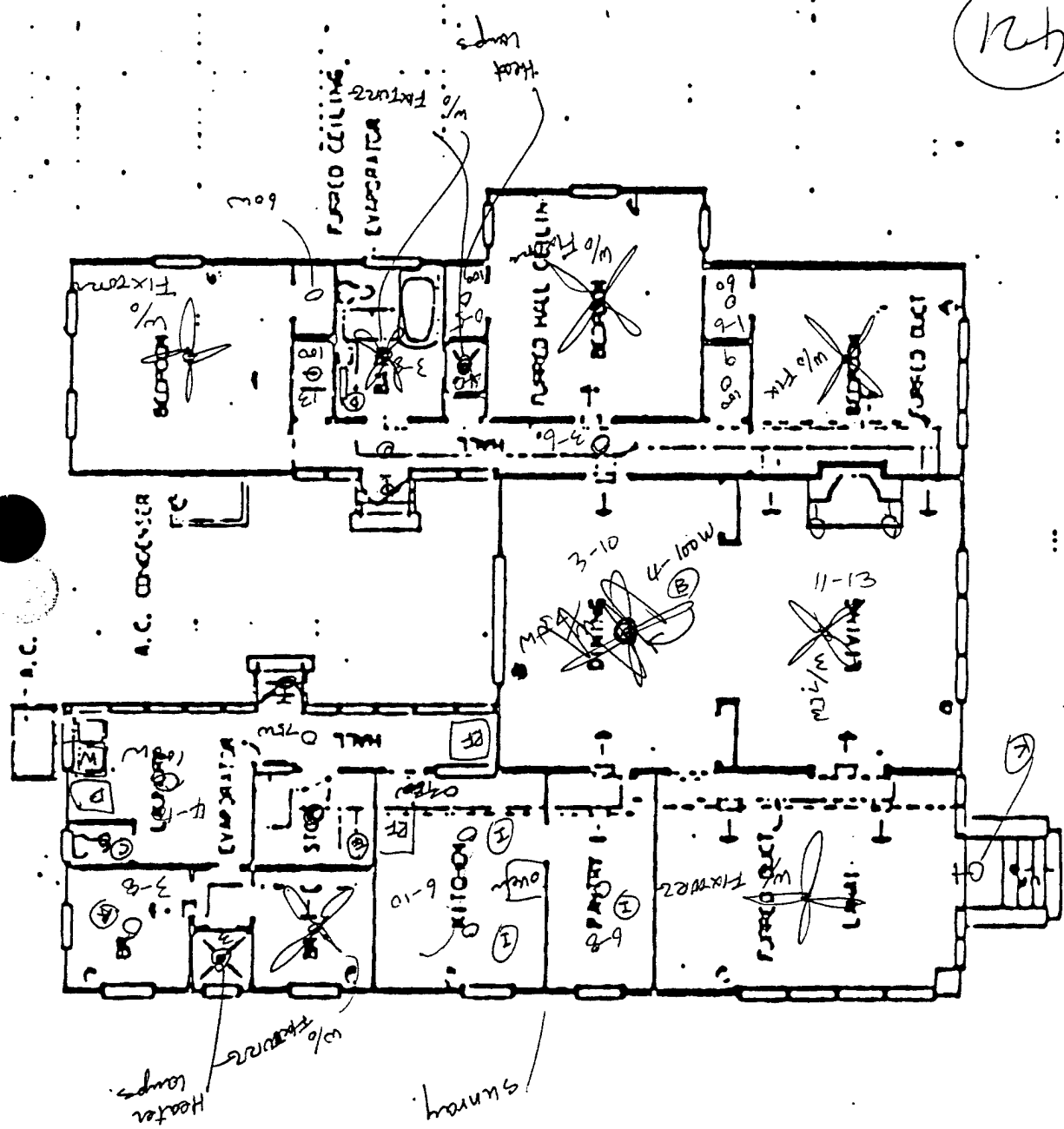


FLOOR PLAN  
SCALE 1/8" = 1'-0"

REVISIONS	1
FAMILY HOUSING	
TRANSITORY DATA FOR AIR CONDITIONING PROJECTS	
OFFICERS' QUARTERS	SCHWELFELD AREAS D.E. AND I
FLOOR PLAN 3 BR	TYPE 3
SCHWELFELD BARRACKS	CAHNS, HAWAII
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN	
CORPS OF ENGINEERS	
HONOLULU, HAWAII	



12h



UNIT TYPE 20-IV

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 804

Building Type: 20-1V

Apartment: —

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 6

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 3

Average No. of Times Dishwasher Used/Day: No Used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*crawl space under  
unit = 2'*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Wood Walls*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Wood Roof*

*Asphalt Shingles*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
✓ Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 120 °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: Not insulated, Inter con. HP piping  
Insulation Thickness: not insl.

e. Is Hot Water Circulated? No

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Storage
- b. Areas Served Entire
- c. Manufacturer and Model Hayt Model FES-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.) E
- e. Type Heaters & Quantities: ✓
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 66 gal

- g. Heating Capacity 2250 W  
h. Type Controls (Air, Steam, Electric) E  
i. When Installed & Condition good cond.  
j. Heater Temperature Setting \_\_\_\_\_  
k. Average Water Maintained Temperature \_\_\_\_\_  
l. Temperature Differential (j) - (k) \_\_\_\_\_  
m. Is Hot Water Supply Adequate \_\_\_\_\_  
n. Insulation Thickness \_\_\_\_\_  
o. Insulation Material \_\_\_\_\_  
p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_  
2) Galons HW/Wash \_\_\_\_\_  
3) Booster Heater Mfg/Mdl \_\_\_\_\_  
4) Heating Source \_\_\_\_\_  
5) Capacity \_\_\_\_\_  
6) Electrical Data \_\_\_\_\_

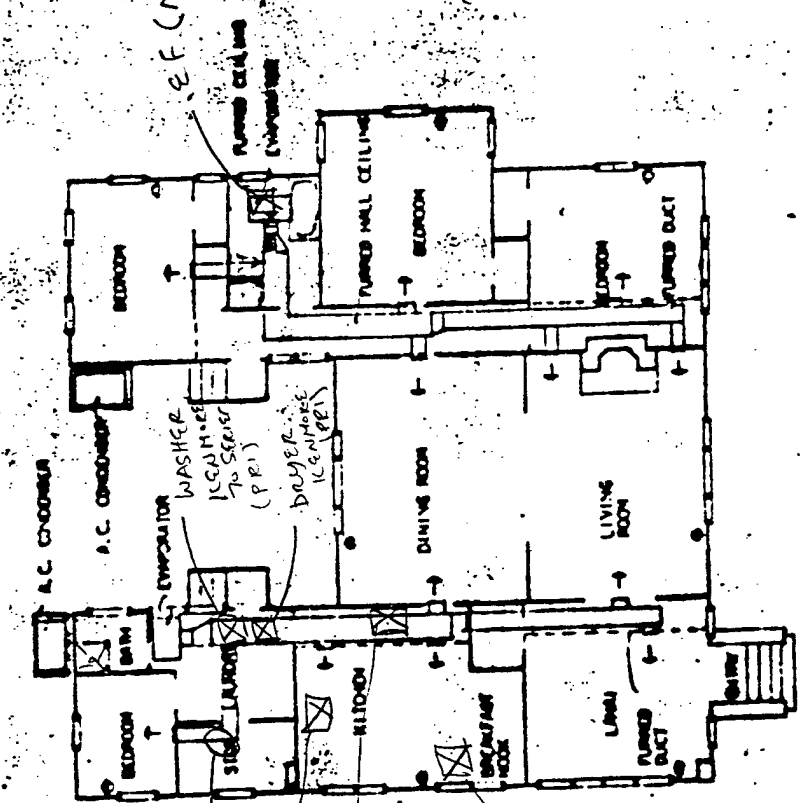
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_  
2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
3) Gallons HW/Wash \_\_\_\_\_  
4) Electrical Data \_\_\_\_\_

*see sketch*

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub Sk	5.2/10s	120F	
Bathroom Shower (Main)	1.2/10s	117F	
Bathroom Tub	6.5/10s	117F	



*Handwritten notes:*

- 600 with 2 HP (790)
- N. Head
- Living
- 600 with 2 HP (790)
- 600 with 2 HP (790)

# 804 R

E.F. (Not working)

BUILDING NUMBERS

803.	804.	805.	806.	807.	808.
810.	811.	812.	813.	814.	815.
816.	817.	818.	819.	820.	821.
822.	823.	824.	825.	826.	827.
828.	829.	830.	831.	832.	833.
834.	835.	836.	837.	838.	839.
840.	841.	842.	843.	844.	845.

SEE SITE PLAN SHEET 20 FOR LOCATION

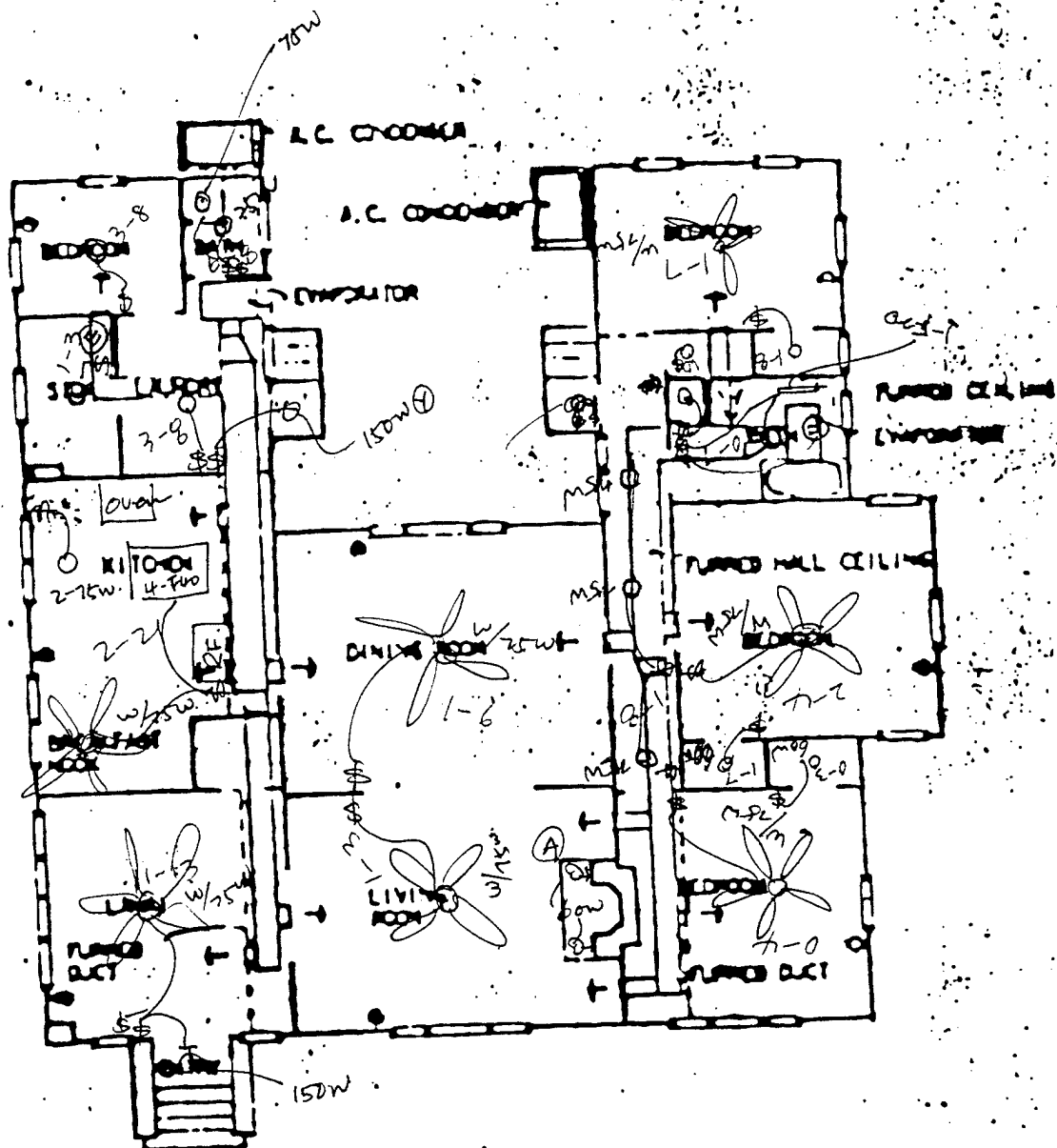
Type 20-IV

PLAN SCALE 1/8" = 1'-0"



REVISIONS	
1	REVISIONS
BUDGETARY DATA FOR A10 CONSTRUCTION PROJECT	
OFFICERS' QUARTERS	SCOTLAND
PLAN	PLAN 3 IN
NO. OF FLOOR SPACES	3000
U. S. ARMY ENGINEER DIVISION, PACIFIC DISTRICT	
HEADQUARTERS, HONOLULU, HAWAII	
LOC. CODE 8230	25 27 07 34

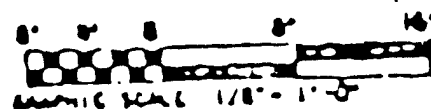
MAY 1973



FLOOR PLAN  
SCALE 1/8" = 1'-0"

TYPE 20 TV

803 804 805 806 807 808 809 816 817 818 819  
820, 821, 822 823, 824





Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 805

Building Type: 20-1V

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all day

No. of Occupants: 5

Average No. of Showers/Day: 8

Average No. of Laundry Loads/Week: 20

Average No. of Times Dishwasher Used/Day: 2

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*same as 804*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

Reflective Coating

### 3.0 HOT WATER SYSTEM

*same as 804*

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building

       Several Small Systems per Building

       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

1) Condition of circulator       

2) Circulator capacity       

3) Is aquastat provided?       

4) Aquastat temperature setting       

5) Mfg/Model       

6) Electrical Data       

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location       

b. Areas Served       

c. Manufacturer and Model       

d. Energy (Oil, Gas, Electric, Coal, Etc.)       

e. Type Heaters & Quantities:

1) Storage       

2) Instantaneous       

3) Semi-Instantaneous       

f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

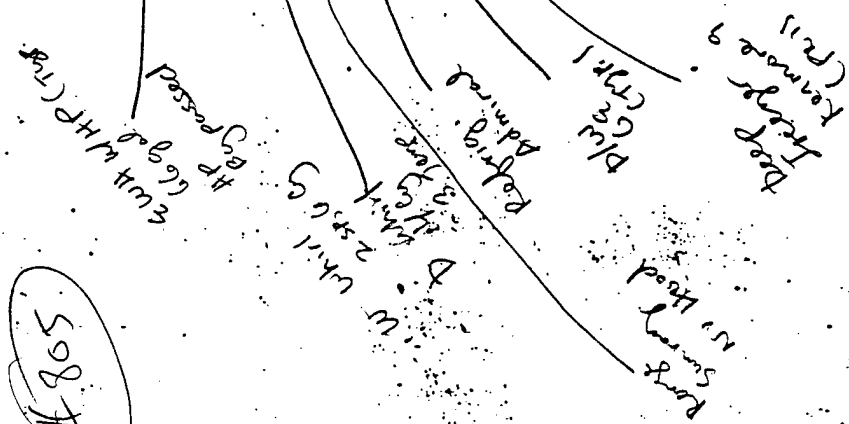
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub sk	32/10s	150°F	
Bath tub	42/10s	146°F	

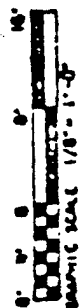


079.	080.	081.	082.	083.
084.	085.	086.	087.	088.
089.	090.	091.	092.	093.
094.	095.	096.	097.	098.
099.	100.	101.	102.	103.

Type 20-IV

LOC CODE 1230	26	27	OF	341
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**May 1973**



8-10-61 1968  
WMA  
1974 1985



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 807

Building Type: 20-1V

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 6

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 2

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as 804

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



Window Yes No  
Tinted         
Reflective Coating       

*same as 804*

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

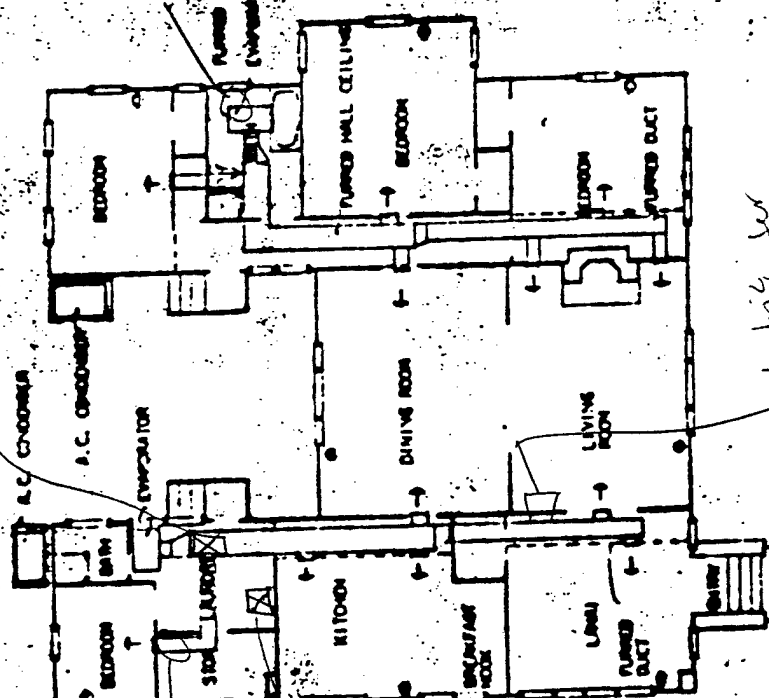
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub St	1.5l/10s	108F	
Shower (Main	3l/10s	108F	



BUILDING NUMBERS

803.	804.	805.	806.	807.	808.
816.	817.	818.	819.	820.	821.
822.	823.	824.	825.	826.	827.
828.	829.	830.	831.	832.	833.

SEE SITE PLAN SHEET 27 FOR LOCATION

FLOOR PLAN  
SCALE 1/8" = 1'-0"

Type 20-IV

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1		ISSUED FOR CONSTRUCTION	
2		ISSUED FOR CONSTRUCTION	
3		ISSUED FOR CONSTRUCTION	
4		ISSUED FOR CONSTRUCTION	
5		ISSUED FOR CONSTRUCTION	
6		ISSUED FOR CONSTRUCTION	
7		ISSUED FOR CONSTRUCTION	
8		ISSUED FOR CONSTRUCTION	
9		ISSUED FOR CONSTRUCTION	
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97		ISSUED FOR CONSTRUCTION	
98		ISSUED FOR CONSTRUCTION	
99		ISSUED FOR CONSTRUCTION	
100		ISSUED FOR CONSTRUCTION	



807 R



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 809

Building Type: 20-1V

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 7

Average No. of Showers/Day: 8

Average No. of Laundry Loads/Week: 35

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 804

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window	Yes	No
Tinted	✓	
Reflective Coating		✓

### 3.0 HOT WATER SYSTEM

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

Same as 804

- a. Is System Supported from (check one):
- \_\_\_\_\_ Central Plant                      \_\_\_\_\_ One System per Building
- \_\_\_\_\_ Several Small Systems per Building
- \_\_\_\_\_ Individual EWH/Unit
- b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
\_\_\_\_\_ °F
- c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_
- e. Is Hot Water Circulated? \_\_\_\_\_
- 1) Condition of circulator \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
- 1) Storage \_\_\_\_\_
- 2) Instantaneous \_\_\_\_\_
- 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

5

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

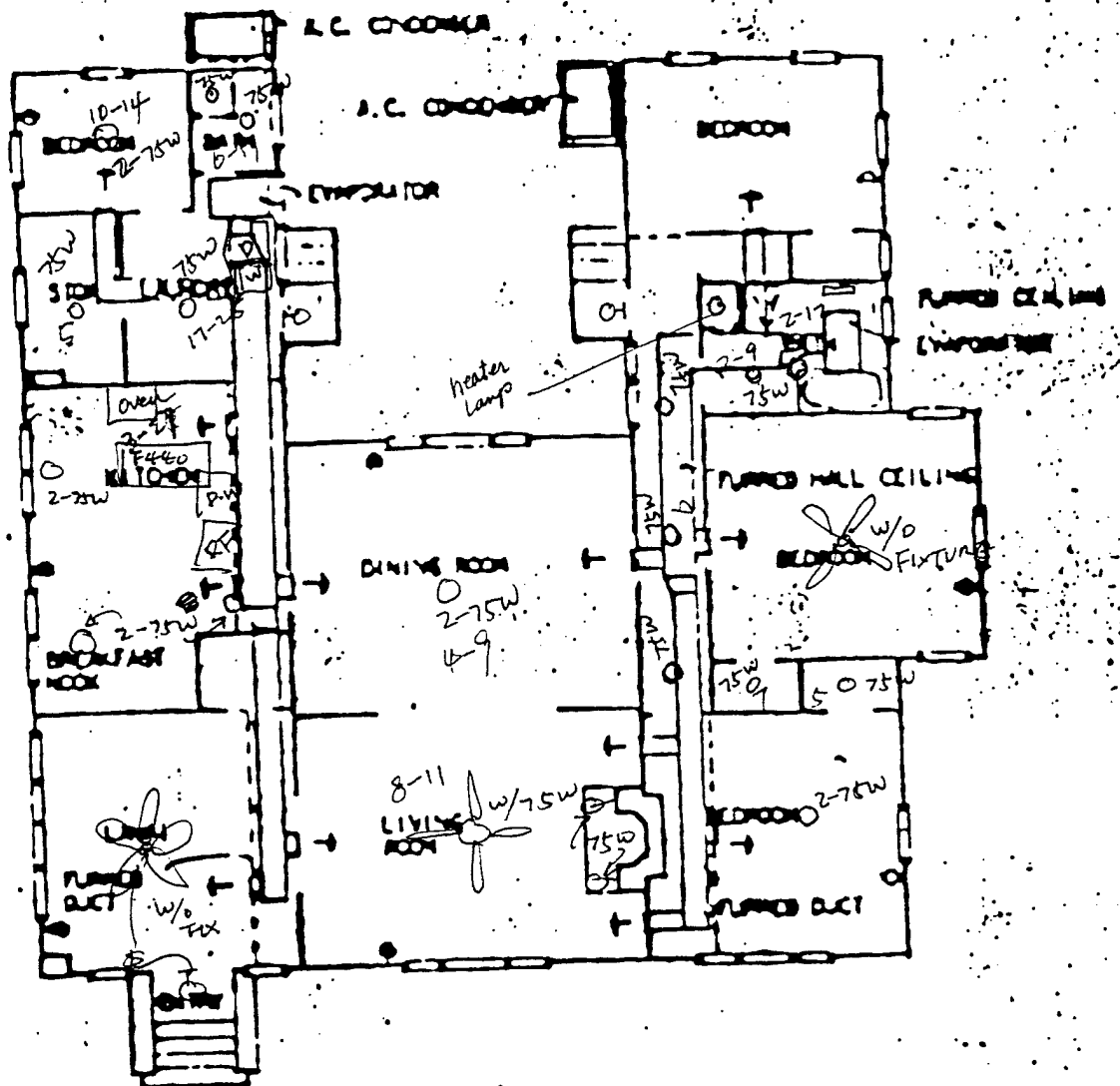
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub Sk	32/10s	140F	
(Main)			
Bathroom Shower	22/10s	130F	Hand shower head



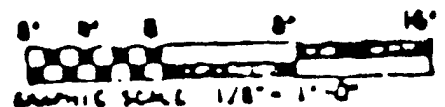




FLOOR PLAN  
SCALE 1/8" = 1'-0"

Type 20 TV

803 804 805 806 807 808 (809) 816 817 818 819  
820, 821, 822 823, 824



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 821  
Building Type: 20-1V  
Apartment: 1  
No. Bedrooms: 4  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: \_\_\_\_\_  
No. of Occupants: 4  
Average No. of Showers/Day: 2  
Average No. of Laundry Loads/Week: 14  
Average No. of Times Dishwasher Used/Day: every other day  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 2.0 ARCHITECTURAL

*Crawl space ~ 1'-18"*  
*under house*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_Outside Film \_\_\_\_\_Insulation \_\_\_\_\_*Wood* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_Outside Film \_\_\_\_\_Insulation \_\_\_\_\_*Wood* \_\_\_\_\_*Asphalt Shingles* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted       

Reflective Coating       

3.0 HOT WATER SYSTEM

*same as 804*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building

       Several Small Systems per Building

       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

1) Condition of circulator       

2) Circulator capacity       

3) Is aquastat provided?       

4) Aquastat temperature setting       

5) Mfg/Model       

6) Electrical Data       

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location       

b. Areas Served       

c. Manufacturer and Model       

d. Energy (Oil, Gas, Electric, Coal, Etc.)       

e. Type Heaters & Quantities:

1) Storage       

2) Instantaneous       

3) Semi-Instantaneous       

f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

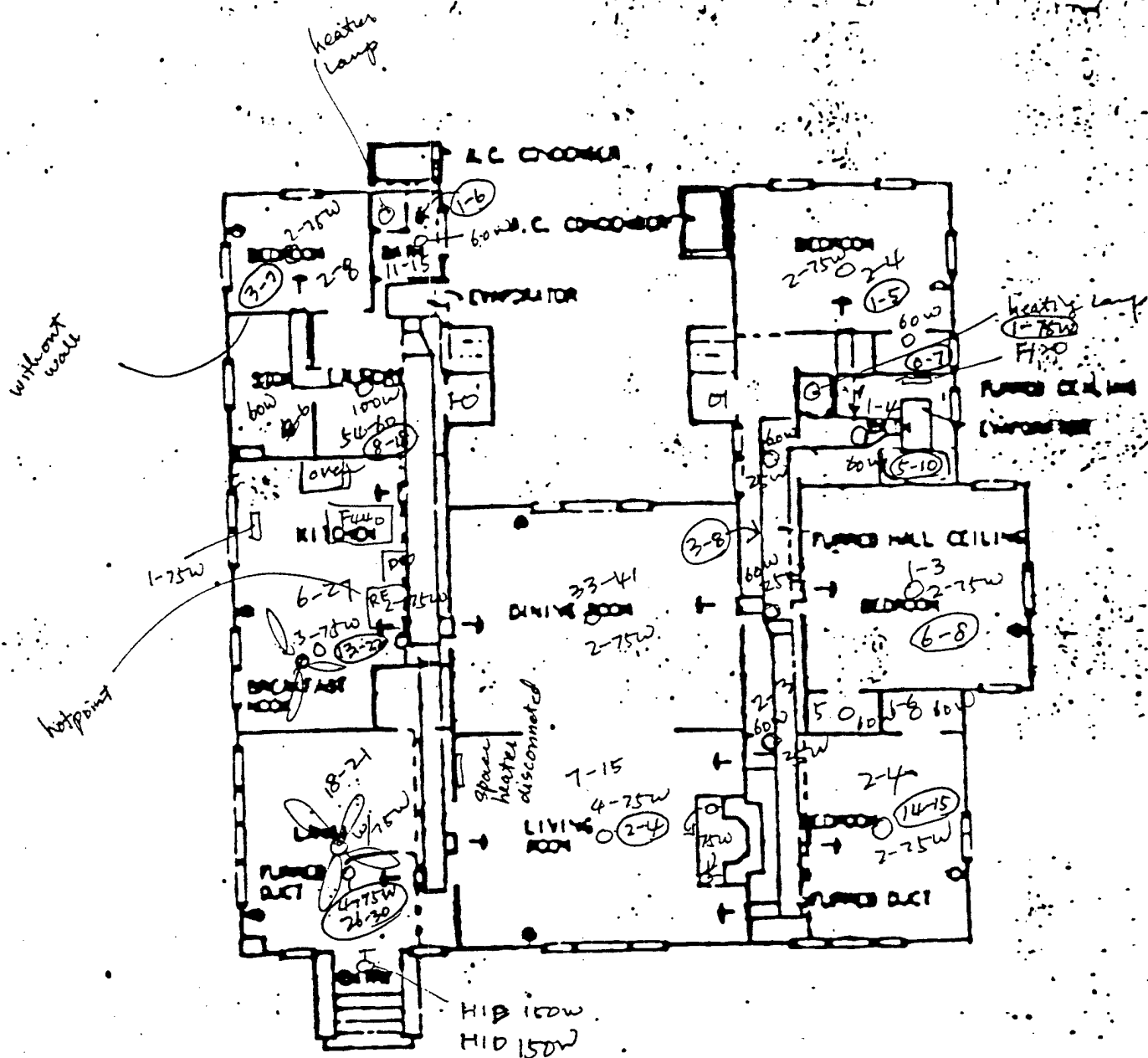
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

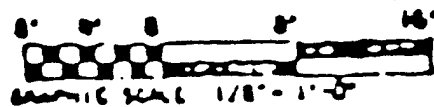
Fixture	Flow	Water Temp.	Remarks
Laundry Tub Sk	32/10s	124 F	





TYPE 20 TV

803 804 805 806 (807) 808 809 816 817 818 819  
820, (821), 822 823, 824





Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 824

Building Type: 20-IV

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 6

Average No. of Showers/Day: \_\_\_\_\_

Average No. of Laundry Loads/Week: 14

Average No. of Times Dishwasher Used/Day: Not at all

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*Same as 804*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

*Same as 804*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

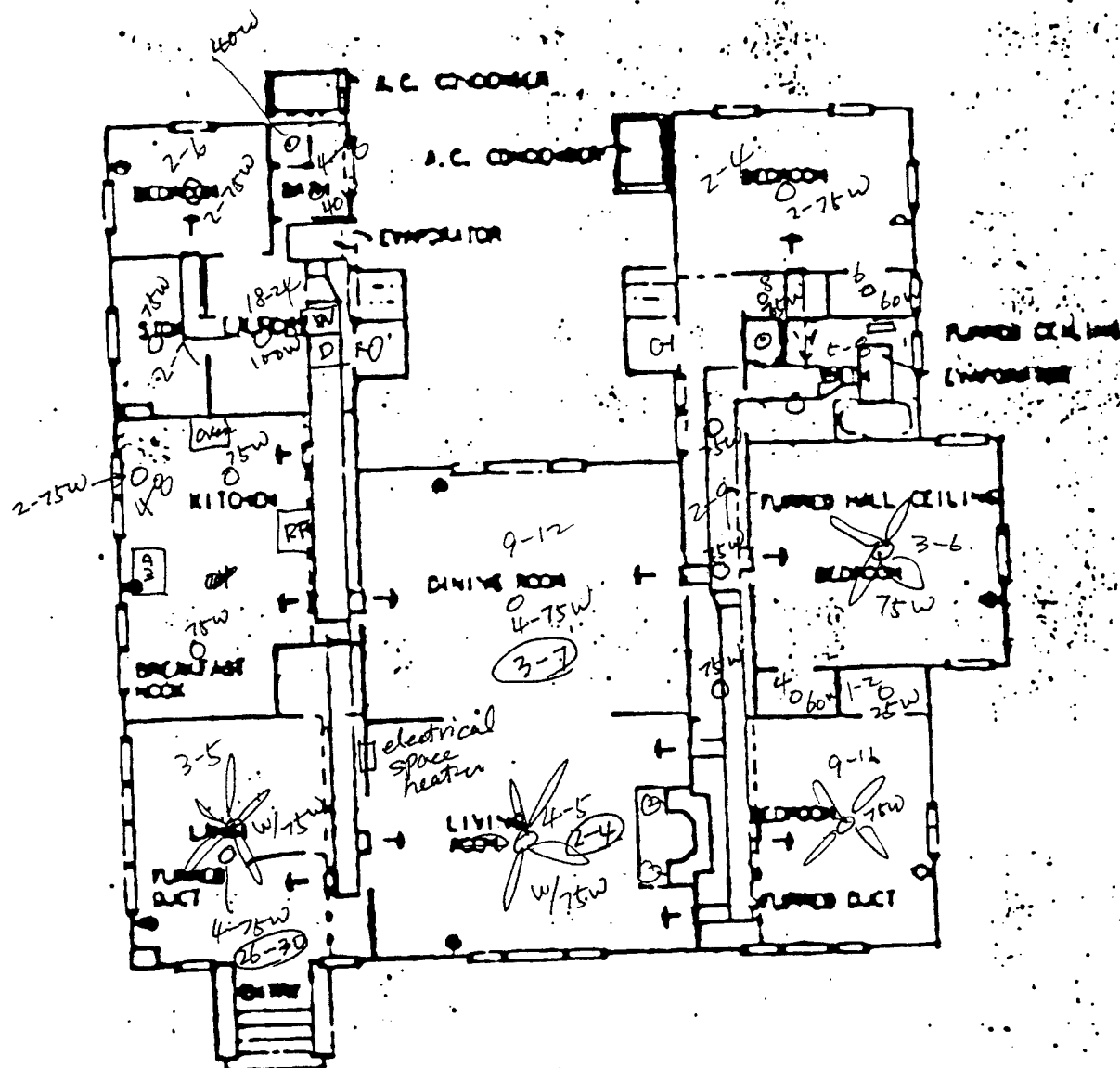
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub Sk	3.5l/10s	124°F	
Main Bath Shower	12/10s	124°F	





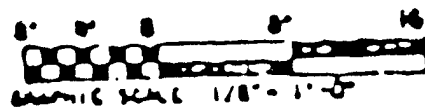
九四九 九四九

1944

type 20 TV.

803 804 805 806 807 808 809 816 817 818 819

820, 821, 822, 823, 824



UNIT TYPE 20-V

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 810

Building Type: 201

Apartment: B

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 3

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

*27' Crawl space  
under house*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Wood wall*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.)

Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Wood*

*Asphalt Shingles*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
  /   Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:   yes    
Insulation Thickness:   1"  

e. Is Hot Water Circulated?   No  

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location   Laundry
- b. Areas Served   entire Unit
- c. Manufacturer and Model   Hayf FES-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.)   E
- e. Type Heaters & Quantities:
  - 1) Storage   /
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity   16 gal

- g. Heating Capacity 7250 W  
h. Type Controls (Air, Steam, Electric) E  
i. When Installed & Condition \_\_\_\_\_  
j. Heater Temperature Setting \_\_\_\_\_  
k. Average Water Maintained Temperature \_\_\_\_\_  
l. Temperature Differential (j) - (k) \_\_\_\_\_  
m. Is Hot Water Supply Adequate \_\_\_\_\_  
n. Insulation Thickness 1"  
o. Insulation Material Armaflex  
p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_  
2) Galons HW/Wash \_\_\_\_\_  
3) Booster Heater Mfg/Mdl \_\_\_\_\_  
4) Heating Source \_\_\_\_\_  
5) Capacity \_\_\_\_\_  
6) Electrical Data \_\_\_\_\_

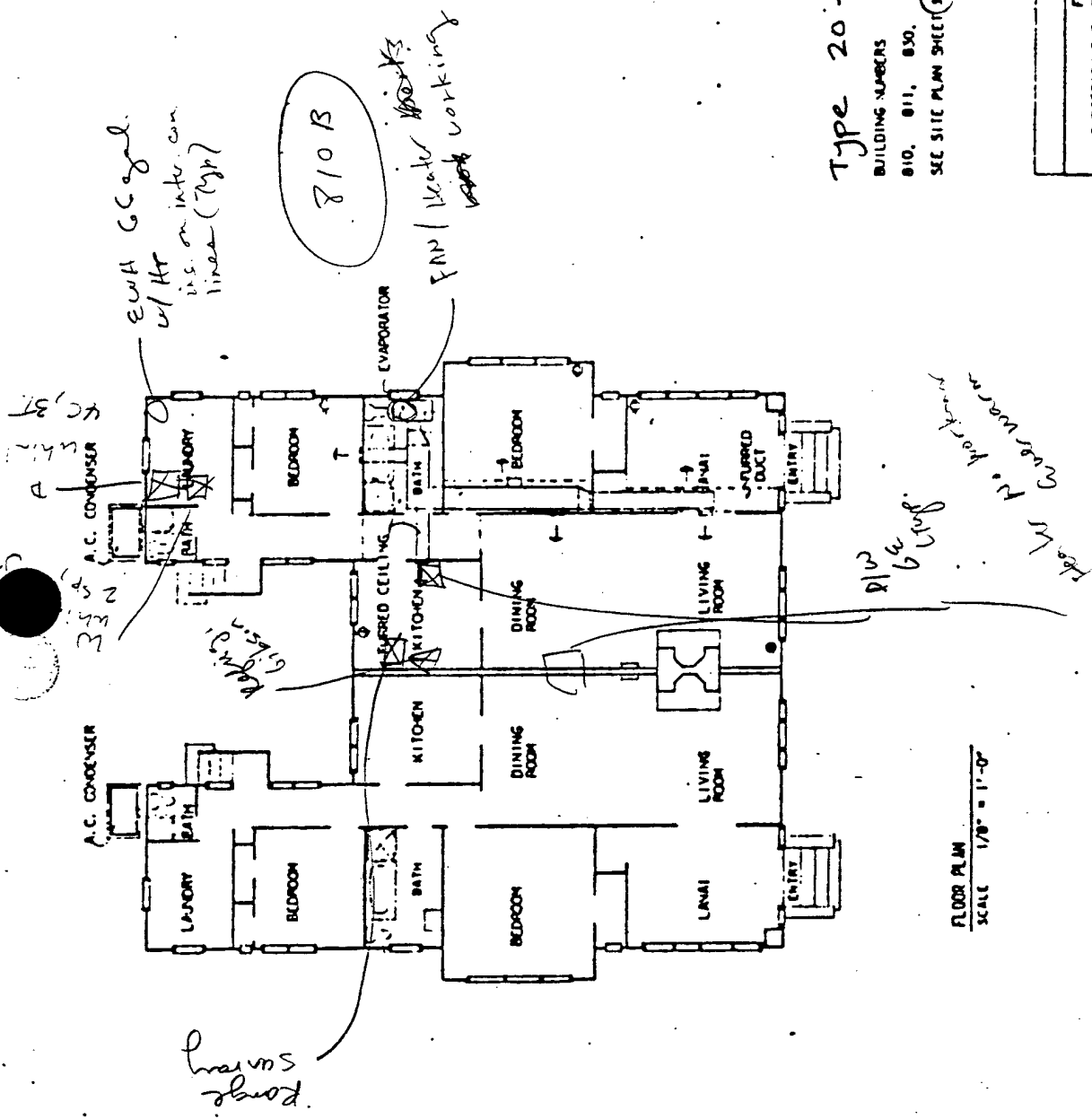
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_  
2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
3) Gallons HW/Wash \_\_\_\_\_  
4) Electrical Data \_\_\_\_\_

*See  
plan*

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub Sk	42/105	108F	



Type 20-V

BUILDING NUMBERS

810, 811, 830, 831, 832, 833, 844

SEE SITE PLAN SHEET (31) FOR LOCATION

FLOOR PLAN  
SCALE 1/8" = 1'-0"

0' 4' 8' 16'  
GRAPHIC SCALE 1/8" = 1'-0"

REVISIONS				
FAMILY HOUSING				
BUDGETARY DATA FOR AIR CONDITIONING PROJECTS				
OFFICERS' QUARTERS		SCHOFFIELD	AREA J	
FLOOR PLAN		2 BR (DOUBLE)	TYPE V	
SCHOFFIELD BARRACKS		DAW, HAWAII		
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN				
CORPS OF ENGINEERS				
HONOLULU, HAWAII				
LOC. CODE 8299	25	23	07	347

MAY 1973

61



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 811

Building Type: 20-V

Apartment: B

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 3

Average No. of Showers/Day: 1 each

Average No. of Laundry Loads/Week: 1

Average No. of Times Dishwasher Used/Day: Not Used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*same as 810*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.)

Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted /  
Reflective Coating /

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub Sk	32/105	112°F	
Main Shower	12/105	110°F	

NO Heat Pump at  
52 gal. same type

SC 137  
A.C. CONDENSER  
A.C. CONDENSER  
A.C. CONDENSER

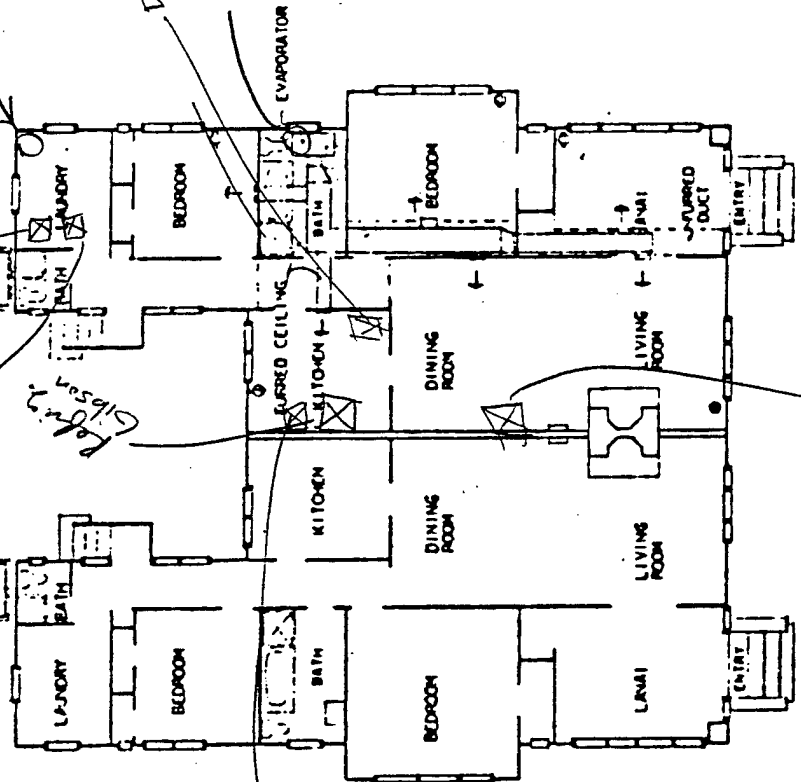
Family Survey  
Living  
Gibson  
A.C. CONDENSER  
A.C. CONDENSER  
A.C. CONDENSER

D/W  
GE Typ.  
E/F/Heater  
Works

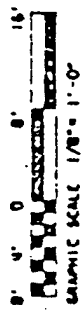
#811B

Type 20-V

BUILDING NUMBERS  
810, 811, 830, 831, 832, 833, 844  
SEE SITE PLAN SHEET (31) FOR LOCATION



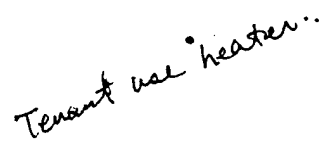
FLOOR PLAN  
SCALE 1/8" = 1'-0"



REVISIONS				
FAMILY HOUSING				
BUDGETARY DATA FOR AIR CONDITIONING PROJECTS				
OFFICERS' QUARTERS	SCHOFIELD	AREA	J	
FLOOR PLAN	2 BR (OCCUPANT)	TYPE	4	
SCHOFIELD BARRACKS				
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN				
CORPS OF ENGINEERS				
HONOLULU, HAWAII				
LOC. CODE	9439	25	23	07
				941

MAY 1973

(31)



GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 830  
Building Type: 20-V  
Apartment: A  
No. Bedrooms: 2  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: ALL DAY  
No. of Occupants: 3  
Average No. of Showers/Day: 2  
Average No. of Laundry Loads/Week: 7  
Average No. of Times Dishwasher Used/Day: every other day  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

~ 1' Crawl space  
under House

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Wood wall \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Wood \_\_\_\_\_

Asphalt Shingles \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted \_\_\_\_\_

Reflective Coating \_\_\_\_\_

*Same as 710*

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

\_\_\_\_\_ Central Plant \_\_\_\_\_ One System per Building

\_\_\_\_\_ Several Small Systems per Building

\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
\_\_\_\_\_ °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
  - 1) Storage \_\_\_\_\_
  - 2) Instantaneous \_\_\_\_\_
  - 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

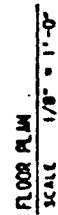
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
laundry Tub Sk	32/10s	110 F	

SEE SITE PLAN SHEET (S1) FOR LOCATION



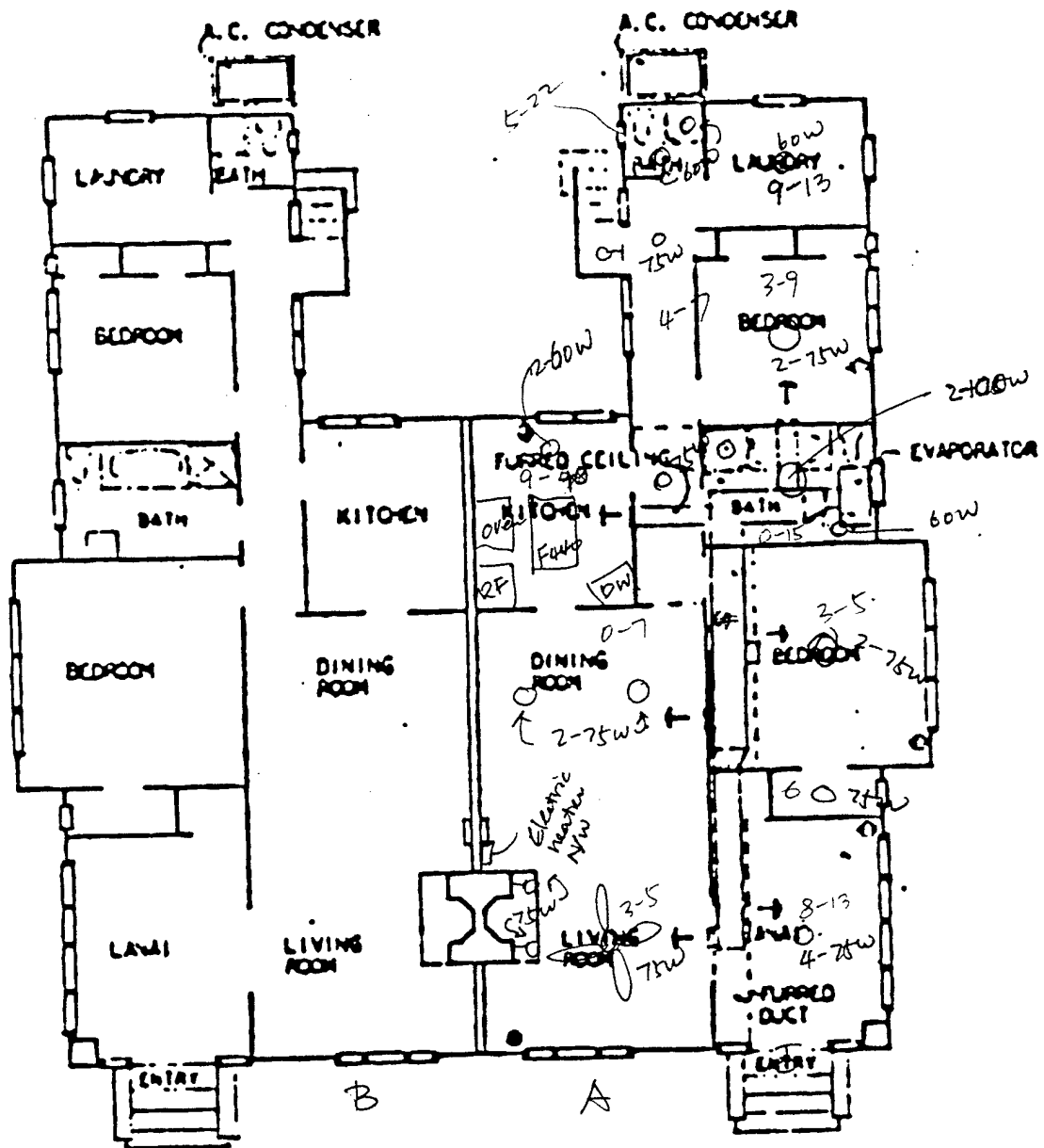
0.0 0.4 0.8 1.2 1.6

LOC. CODE 9399	25	23	07	947	9
<p>HOLOLANI, HAWAII</p> <p>U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN CORPS OF ENGINEERS</p> <p>SC-OFIELD BARBERS</p> <p>DATE, HAWAII</p>					
<p>BUDGETARY DATA FOR AIR CONDITIONING PROJECTS</p> <p>FAMILY HOUSING</p> <p>OFFICERS' QUARTERS SC-OFIELD AREA J</p> <p>FLOOR PLAN 2 BR (SUBLET) TYPE N</p>					
<p>REVISIONS</p>					

MAY 1973

61





FLOOR PLAN  
SCALE 1/8" = 1'-0"

Type 20V

810, 811, 830, 831, 832, 833, 844

GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 831

Building Type: 20-V

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: from 5-6

No. of Occupants: 2

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 810

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

same as 8/0

same as 8/0

same as 8/0

- same as 8/0

same as 8/0

- same as 8/0

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

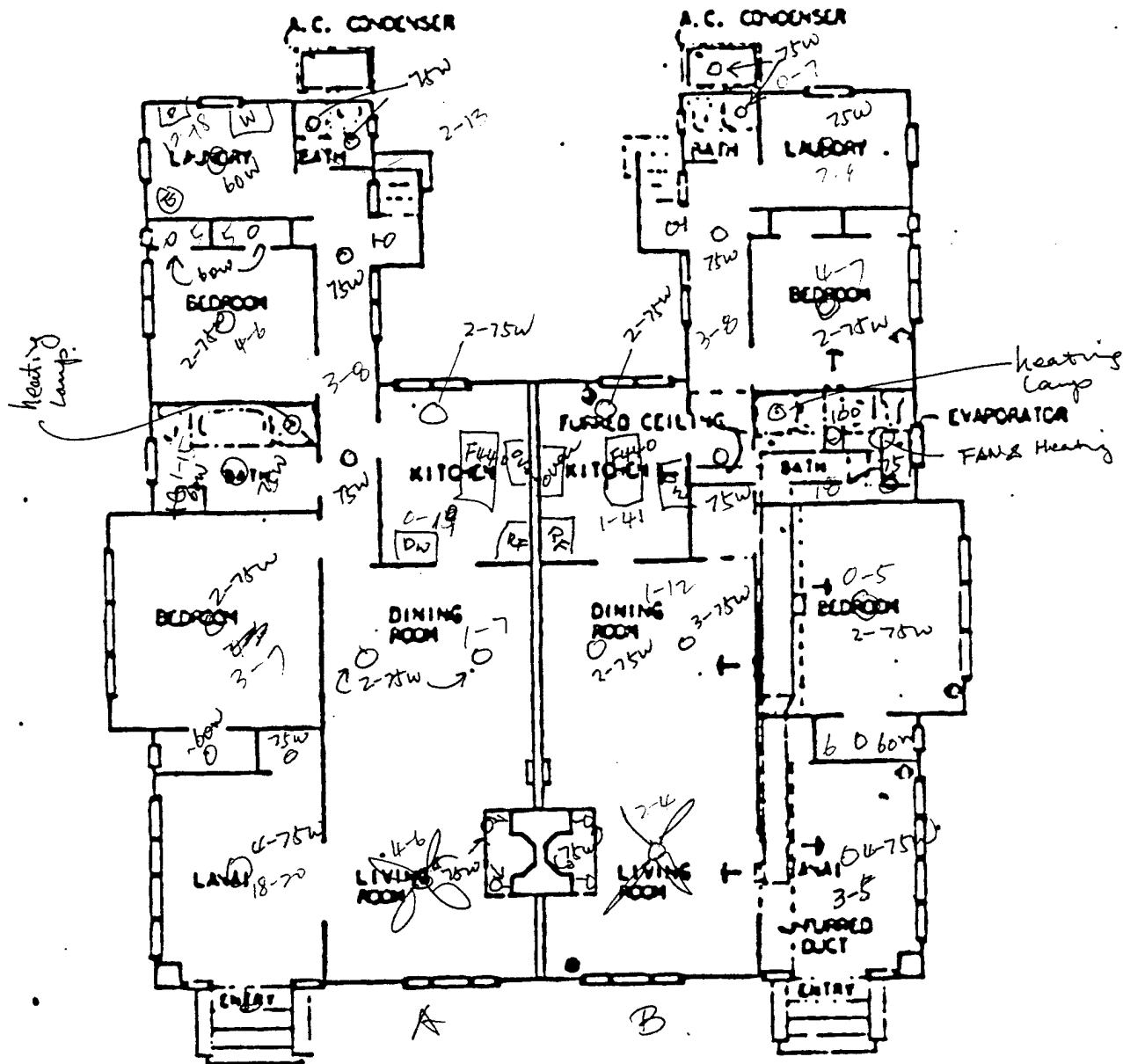
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Main Shower	12/105	118 F	





FLOOR PLAN  
SCALE 1/8" = 1'-0"

Type 20V

810, 811, 830, 831, 832, 833, 844

GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 831

Building Type: 20-V

Apartment: B

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 3

Average No. of Showers/Day: \_\_\_\_\_

Average No. of Laundry Loads/Week: 21

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

Same as 810

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

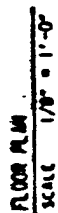
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Laundry Tub Sk	3.5 l/10s	120 F	



SEE SITE PLAN SHEET 11 FOR LOCATION

9. 0. 0 8. 16.

①



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 833

Building Type: 20-V

Apartment: B

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Same as 810

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*same as 810*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
  /   Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

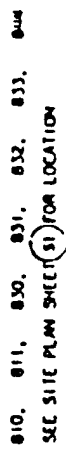
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

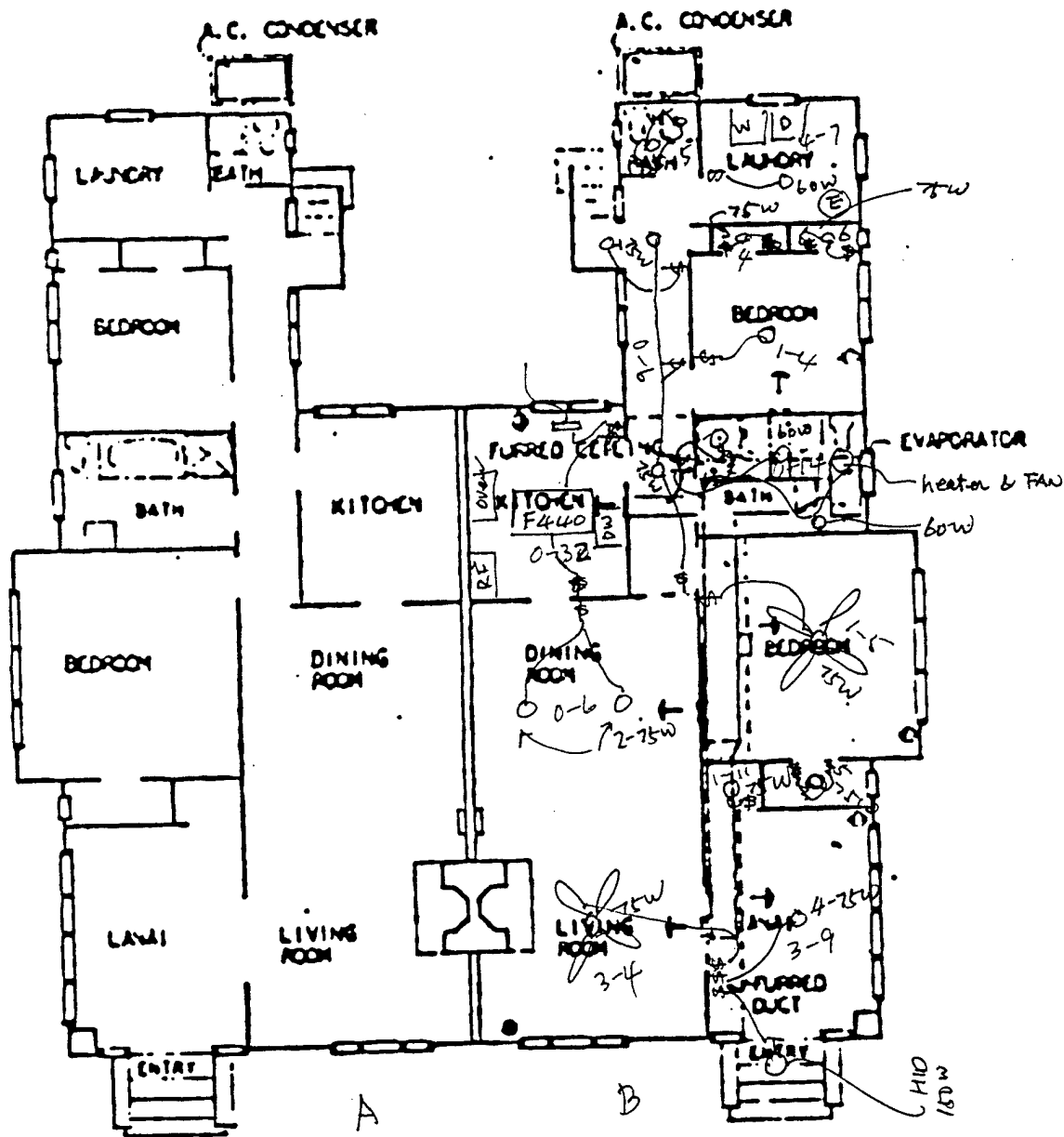
Fixture	Flow	Water Temp.	Remarks
Main Bath tub	52/10s	138F	
Shower	2/10s	138F	



Wet.  
Wet. warm  
Ever warm  
(23)

GRAPHIC SCALE 1/8" = 1'-0"

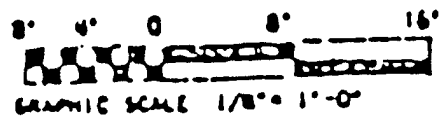
11



FLOOR PLAN  
SCALE 1/8" = 1'-0"

Type 20V

810, 811, 830, 831, 832, 833, 844



UNIT TYPE 32-I

Date: 1/8/90  
Prepared By: fr

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 52

Building Type: 32-1

Apartment: -

No. Bedrooms: 2

Area: A

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 2

Average No. of Showers/Day: \_\_\_\_\_

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: No D/W

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 2.0 ARCHITECTURAL

## Construction

Wall conc. Color: D      H      L     

Material	Thickness (In.)	R Value
----------	-----------------	---------

Outside Film

Insulation

Conc. Wall

## Inside Film

**Total**

U-Factor \_\_\_\_\_ Area \_\_\_\_\_

Roof (Incl. Clg.)      Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material	Thickness (In.)	R Value
----------	-----------------	---------

Outside Film

### Insulation

Conc. Cil

Wood Deck

## Asphalt Shingles

### Inside Film

**Total**

U-Factor \_\_\_\_\_ Area \_\_\_\_\_

conc. foundation  
No crawl space under  
house

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 134 °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: No visible insulation  
Insulation Thickness:       

e. Is Hot Water Circulated? NO

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Storage Closet
- b. Areas Served ALL
- c. Manufacturer and Model Hoyt Energy Master Model 52 FES-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.) Electric
- e. Type Heaters & Quantities:
  - 1) Storage ✓
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 52 gal

(4)

2250 Watt  
230V

Heat Pump - Feeders

- g. Heating Capacity 2250 W  
 h. Type Controls (Air, Steam, Electric) E  
 i. When Installed & Condition Good Condition  
 j. Heater Temperature Setting \_\_\_\_\_  
 k. Average Water Maintained Temperature 134  
 l. Temperature Differential (j) - (k) \_\_\_\_\_  
 m. Is Hot Water Supply Adequate Y  
 n. Insulation Thickness None  
 o. Insulation Material \_\_\_\_\_  
 p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl None  
 2) Galons HW/Wash \_\_\_\_\_  
 3) Booster Heater Mfg/Mdl \_\_\_\_\_  
 4) Heating Source \_\_\_\_\_  
 5) Capacity \_\_\_\_\_  
 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl Whirlpool 2-sp, 5 cycle  
 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
 3) Gallons HW/Wash \_\_\_\_\_  
 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
Kit Sk	32/205	134	
Master Bath Lav.	12/105	134	





32-1

**1. How many people are there in your family?**

2  
3  
4  
5  
6

॥ ॐ नमो भगवते वासुदेवाय ॥

32-II

THE  
JOURNAL  
OF  
THE  
ROYAL  
ANTHROPOLOGICAL  
INSTITUTE

**WILLIAMS BROS. CO.**

ॐ नमो भगवते वासुदेवाय

71.

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED  
DATE 11-26-2013 BY 60322

11

**NEW LINE**

**NAME**

100-443887-100

SECRETARY OF THE ARMY

1960 FEB 17 MONDAY

**ALCOHOL**

[illegible]

UNITED STATES DEPARTMENT OF COMMERCE  
BUREAU OF ECONOMIC ANALYSIS  
WASHINGTON, D. C. 20540

[illegible]

**UNITED STATES DEPARTMENT OF JUSTICE**

4	3	2	1	
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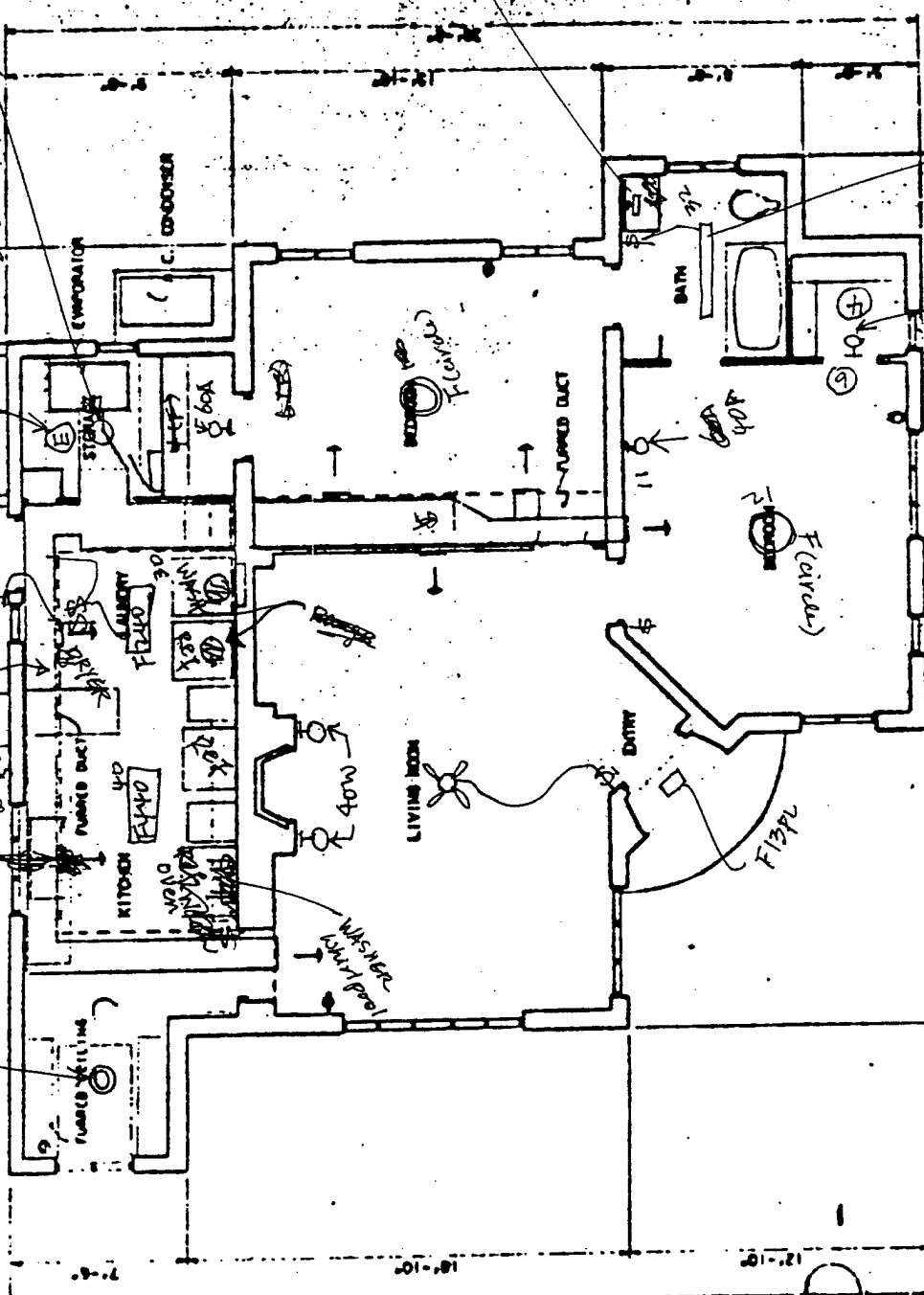
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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**1991**

FLOOR PLAN  
SCALE 1/8" = 1'-0"

GRAPHIC SCALE 1/8" = 1'-0"

1



I-24

BUILDING NUMBERS (SOUTHERN STREET SIDE)

68.	70.	72.	74.
94.	96.	98.	100

BUILDING NUMBERS (W. 2ND STREET SIDE)

61.	63.	65.	67.
71.	73.	75.	77

SEE SITE PLAN SHEET 69 FOR LOCATIONS

REVIEWS	FAMILY HOUSING		
SUPPLEMENTARY DATA FOR AIR CONDITIONING PROJECT			
23 FOR FAMILY SHANTIES	AREA		
PLANNING	SOUTHFIELD		
SOUTHFIELD			
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN			
COMPS OF BUILDINGS			
NOV-1-11 1961			
LAB. CODE 6299	25	23	24

1000 944  
1747 11-28

Surface  
moment  
F 400cm.

0-100-1 2708 51469

Date: 1/8/90  
Prepared By: LK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 53

Building Type: 32-I

Apartment: 2

No. Bedrooms: 2

Area: A

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 6 AM - 6 PM ~~WEEK~~ APOCCUP.

No. of Occupants: \_\_\_\_\_

Average No. of Showers/Day: 2 shower/person

Average No. of Laundry Loads/Week: 4-5 load

Average No. of Times Dishwasher Used/Day: None

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*Same as K2*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.)

Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

*am cut  
at drop  
plaster  
in some  
rooms*

Window Yes No  
Tinted ✓ light  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 122 <sup>kit.</sup> °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: None  
Insulation Thickness:       

e. Is Hot Water Circulated? No

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Storage
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

1.2 l in 10 S.  
kit.

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl No MC
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

Fixture	Flow	Water Temp.	Remarks
KIT SK	1.2l/10s	122	





STORAGE ROOM (WASHES)  
FOR MASH, 41-44, 71-75

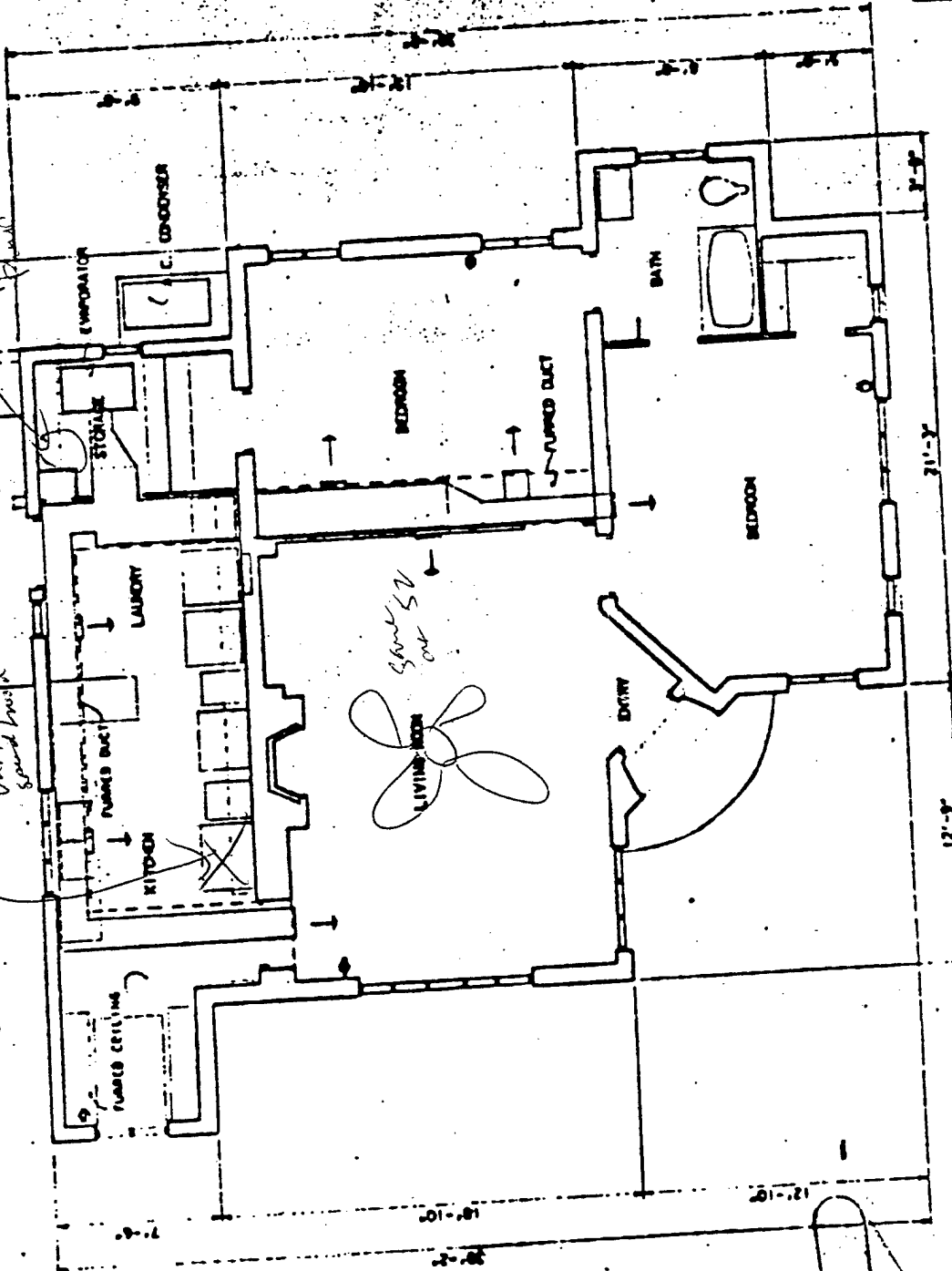
rough - life

50-10-10

paper  
w/ Brown  
Variable  
Sound track

11' 6" Save on H. Setting  
6' 6" Set on H. Setting

#53



FLOOR PLAN  
SCALE 1/4" = 1'-0"

1" 2" 0' 4" 8"  
GRAPHIC SCALE 1/4" = 1'-0"

BUILDING NUMBERS (WITH STORING ROOM)  
50, 51, 52, 53, 54, 55, 56, 57, 58, 59  
BUILDING NUMBERS (WITH STORING ROOM)  
61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75  
SEE SITE PLAN SHEET FOR LOCATION

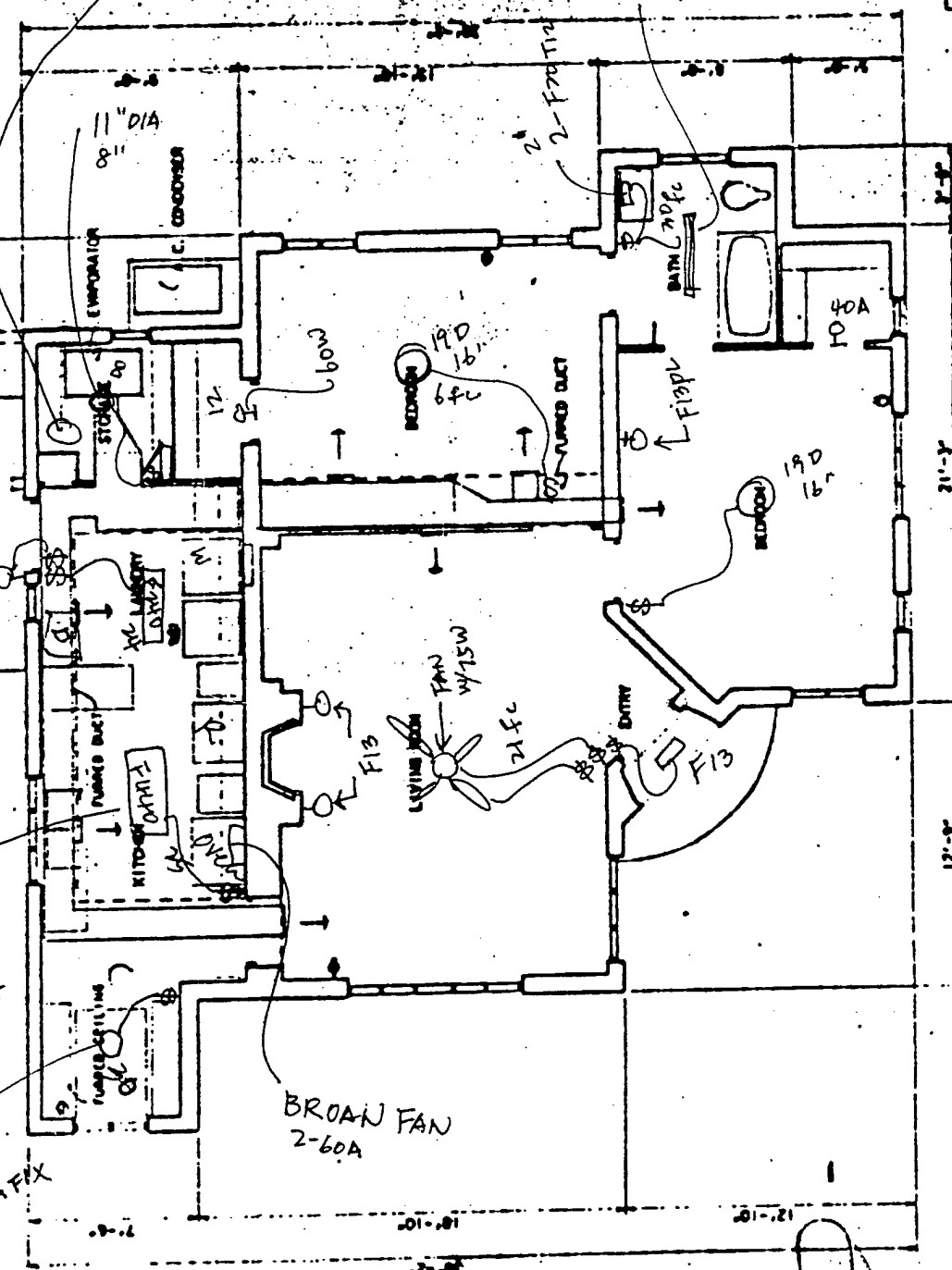
REVISIONS	
1	FINAL DESIGN
SUBMITTAL DATA FOR AIR CONDITIONING PROJECT	
23 NO. FAMILY BATHS	
FLOOR PLAN	
NO. OF FLOOR BATHS	
U. S. NAVY ENGINEERING DIVISION, PACIFIC OCEAN	
CORPS OF ENGINEERS	
NO. 111, 112, 113	
LDC CODE 5250	25 23 27 34

NOV 1975

PLUMBING ROOM (PAUSED)  
FOR R. 404, 41-42, 71-73

BRN 2-10/10/10/10

19" DIA  
16" DIA FLEX



ELEC. WATER HEATER w/o heat pump  
230V/2250W/52 CAP.

32-1  
#53

BUILDING NUMBERS (WITH STAIRS) 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

REVISIONS	
1	FAMILY ROOM
BUDGETARY DATA FOR AIR CONDITIONING PROJECT	
23 NO. FAMILY BUILDINGS	
FLOOR PLAN	
NO. OF FLOOR BUILDINGS	
U. S. ARMY DISTRICT DIVISION, PACIFIC OCEAN	
CORPS OF ENGINEERS	
HONOLULU, HAWAII	
LAC. CODE 1000	20 23 27 30



FLOOR PLAN  
SCALE 1/4" = 1'-0"

Date: 1/8/90  
Prepared By: UK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 54

Building Type: 32-1

Apartment: \_\_\_\_\_

No. Bedrooms: 2

Area: A

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 2

Average No. of Showers/Day: ~2/person

Average No. of Laundry Loads/Week: Varies ~ 3

Average No. of Times Dishwasher Used/Day: Not used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*Same as 52*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Tinted

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

☐ Central Plant                      ☐ One System per Building

☐ Several Small Systems per Building

☒ Individual EWH/Unit

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

a. Location Storage

b. Areas Served \_\_\_\_\_

c. Manufacturer and Model \_\_\_\_\_

d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

e. Type Heaters & Quantities:

1) Storage \_\_\_\_\_

2) Instantaneous \_\_\_\_\_

3) Semi-Instantaneous \_\_\_\_\_

f. Heater Size and Storage Capacity 52 gal

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

- a. Dishwasher *Priv. not used*

- 1) Mfg/Mdl GE
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

- b. Clothes Washer *Priv.*

- 1) Mfg/Mdl GE Heavy duty Extra Large Capacity
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

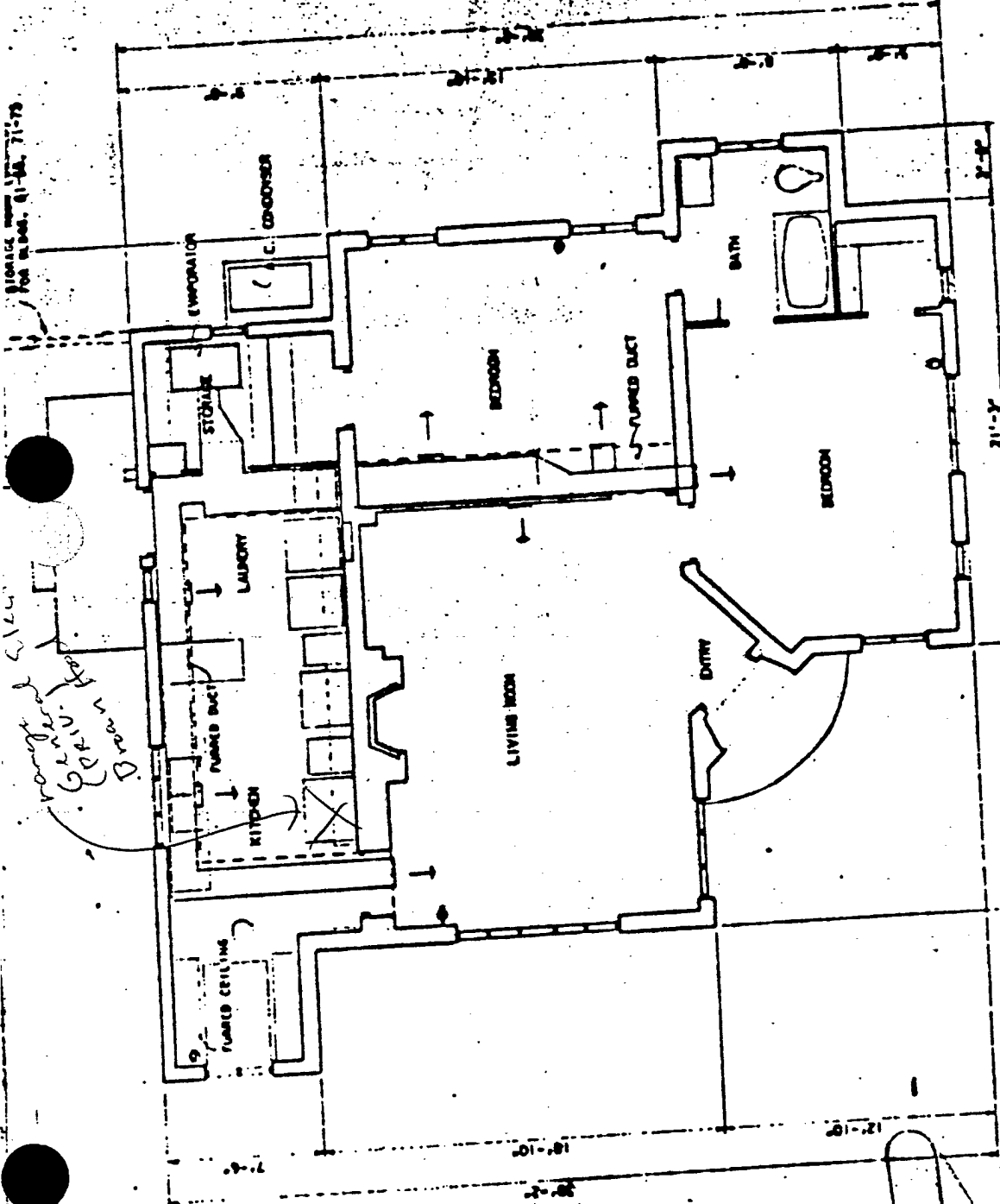
Fixture	Flow	Water Temp.	Remarks
KL SL	1.5 l/105	132	

*6 cycle w/ hini-wash*

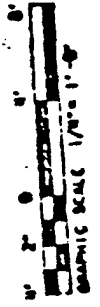


STORAGE ROOM 11-14, 71-73  
FOR M. 60, 61-62, 71-73

roughed in  
plumbing for  
bath  
bathroom



FLOOR PLAN  
SCALE 1/8" = 1'-0"



#58  
Rest same

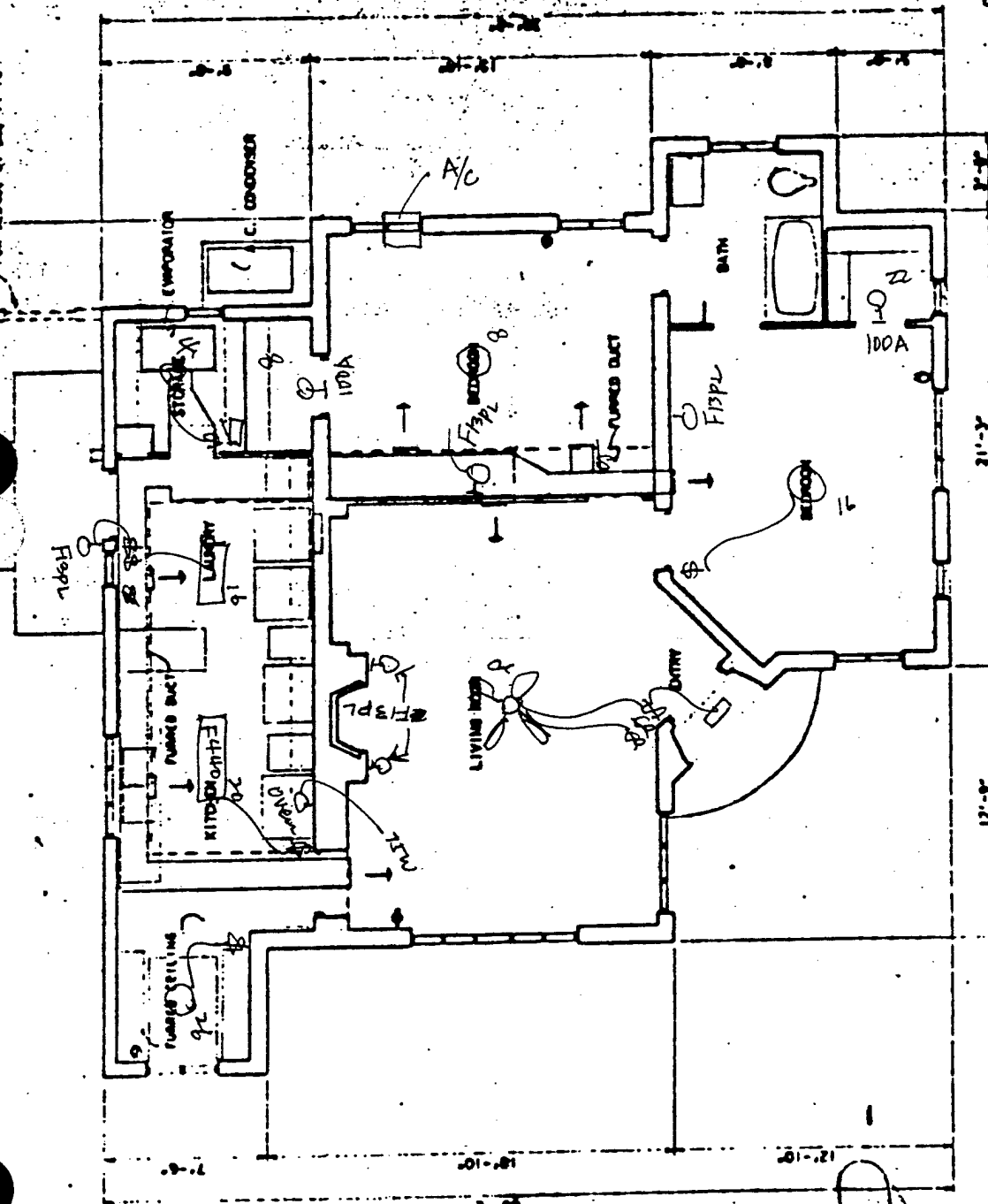
BUILDING NUMBERS (WITHIN STANDBY AREA)  
61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100  
SEE SITE PLAN SHEET 60 FOR LOCATION

REVISED	
FAMILY ROOM	
BUDGETARY DATA FOR AIR CONDITIONING PROJECT	
23 NO. FAMILY BUILDINGS	
FLOOR PLAN	
SCHEDULE BUILDINGS	
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN	
CORPS OF ENGINEERS	
HONOLULU, HAWAII	
LOC. CODE DATA	20 21 22 23 24

NOV 1973



She say  
Should ~~take~~ two  
in bathroom  
switches



19-1-2/1

**DEFINITION**

7/10/1971

**SUBJECT: DATA FOR THE COMPTON HAWK PROJECT**

**23 NOV 7 00L Y BOSTON**

DATE: 07/11/2003

U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  
COMD OF ENGINEERS

100-477604

一	二	三	四	五	六	七	八	九	十	十一	十二	十三	十四	十五	十六	十七	十八	十九	二十	二十一	二十二	二十三	二十四	二十五	二十六	二十七	二十八	二十九	三十	三十一	三十二	三十三	三十四	三十五	三十六	三十七	三十八	三十九	四十	四十一	四十二	四十三	四十四	四十五	四十六	四十七	四十八	四十九	五十	五十一	五十二	五十三	五十四	五十五	五十六	五十七	五十八	五十九	六十	六十一	六十二	六十三	六十四	六十五	六十六	六十七	六十八	六十九	七十	七十一	七十二	七十三	七十四	七十五	七十六	七十七	七十八	七十九	八十	八十一	八十二	八十三	八十四	八十五	八十六	八十七	八十八	八十九	九十	九十一	九十二	九十三	九十四	九十五	九十六	九十七	九十八	九十九	一百
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**2013**

五

Plumbing  
is new in  
all these types  
1 year ago

Date: 1/8/90  
Prepared By: LR

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 55

Building Type: ~~A~~ 32 I

Apartment: \_\_\_\_\_

No. Bedrooms: 2

Area: A

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: gone most of day till say 5 pm

No. of Occupants: 3

Average No. of Showers/Day: twice a day per person 6 total

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: None

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*Same as 52*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 132 °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: None  
Insulation Thickness:       

e. Is Hot Water Circulated? NO

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Shower same as 52
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
- 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

4 #2 in 105  
kit.

(4)

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

*same as 5*

### 3.3 HW USING APPLIANCES

#### a. Dishwasher *none*

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

*same as 52*

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

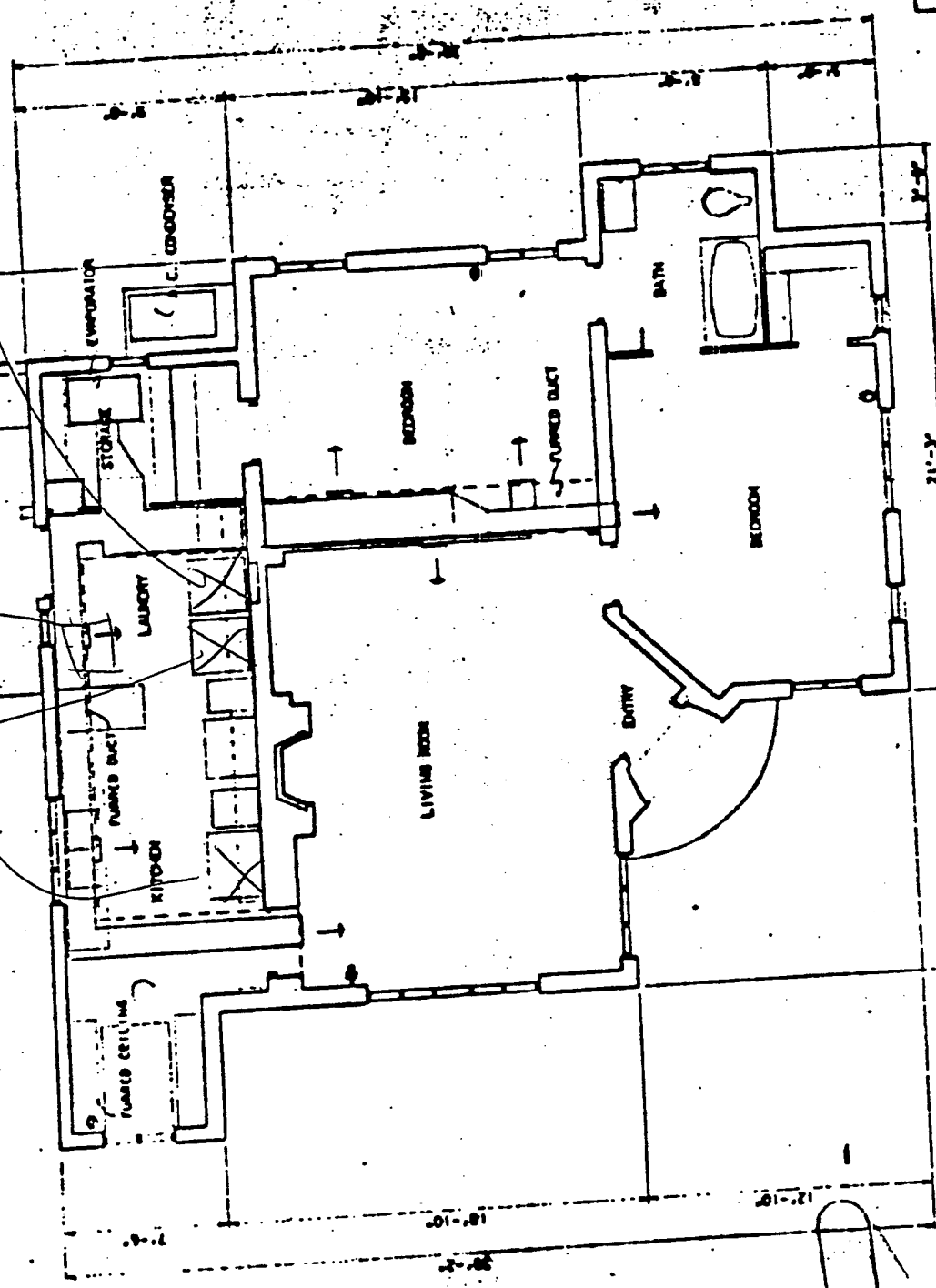
Fixture	Flow	Water Temp.	Remarks
Kit Sk	42/105	132	
Shwr	1.52/105	132	



STORAGE ROOM (11-78)  
FOR M.B.S. 41-42, 71-78

*Handwritten notes:*  
CROSS  
PIPE  
vent

#52

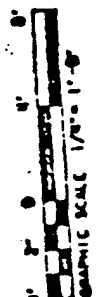


BUILDING NUMBERS (in order of storage room)  
50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

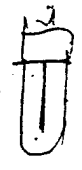
BUILDING NUMBERS (in order of storage room)  
61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

SEE SITE PLAN SHEET 60 FOR LOCATION

FLOOR PLAN  
SCALE 1/4" = 1'-0"



REVISED	
FAMILY HOUSING	
SECURITY DATA FOR AIR CONDITIONING PROJECT	
23 KID FAMILY BARRACKS	
NOVEMBER 1973	
NOVEMBER 1973	
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN	
COMPS OF BUILDINGS	
NOVEMBER 1973	
LAC. CODE 0000	
NOV 1973	



F13WPL

7-14

BUILDING NUMBERS (SEE LIST STATION 1000)

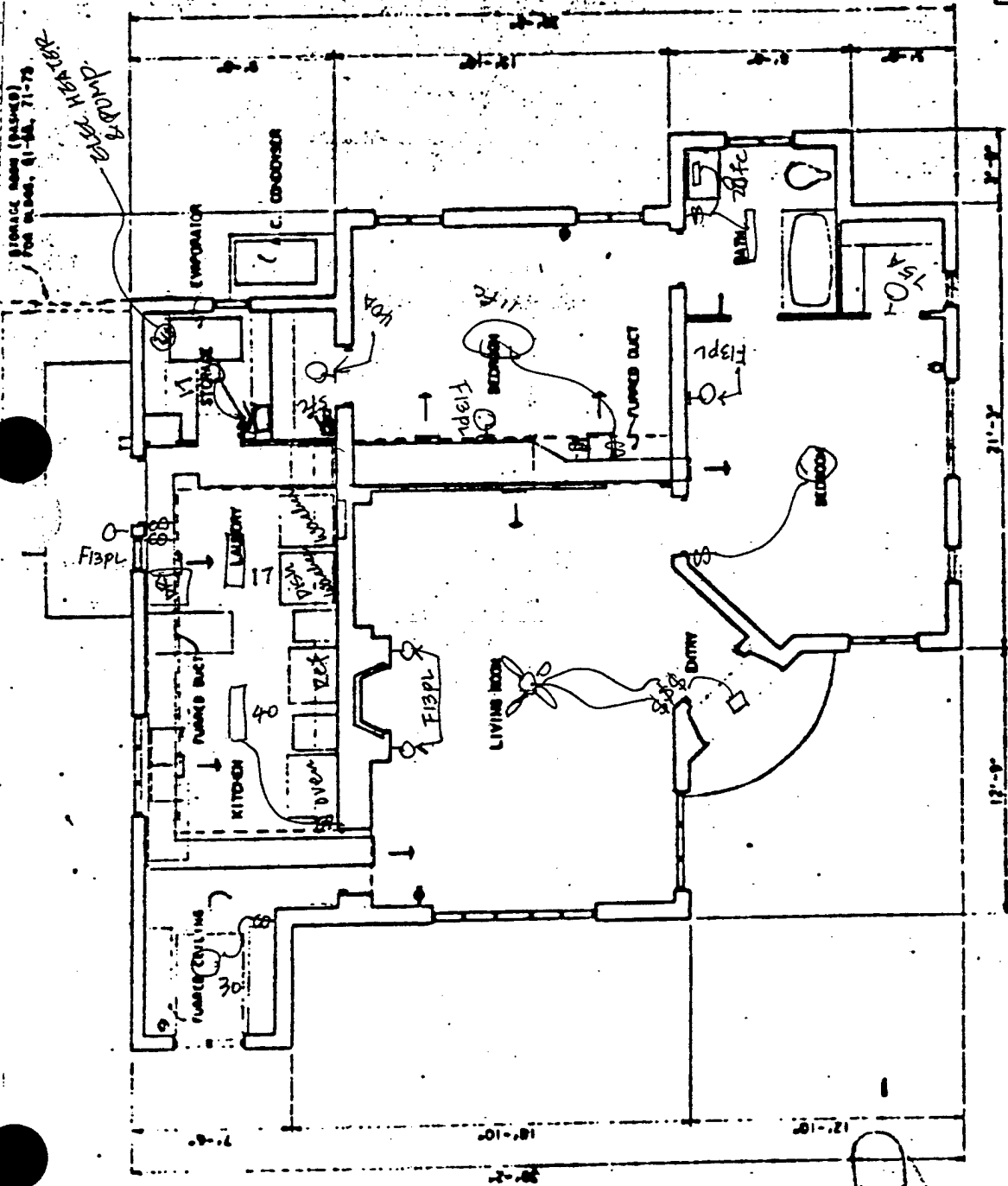
10. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

BUILDING NUMBERS (SEE LIST STATION 1000)

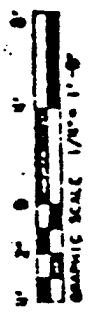
10. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

SEE SITE PLAN SHEET 1000 FOR LOCATION

| REVISIONS                                   |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|
| FAMILY ROOMS                                |  |  |  |  |  |  |  |  |  |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECT |  |  |  |  |  |  |  |  |  |
| 20 HOD FAMILY BUILDINGS                     |  |  |  |  |  |  |  |  |  |
| FLOOR PLAN                                  |  |  |  |  |  |  |  |  |  |
| SCHEDULED MATERIALS                         |  |  |  |  |  |  |  |  |  |
| U. S. ARMY DESIGNER DIVISION, PACIFIC OCEAN |  |  |  |  |  |  |  |  |  |
| CORPS OF ENGINEERS                          |  |  |  |  |  |  |  |  |  |
| HONOLULU, HAWAII                            |  |  |  |  |  |  |  |  |  |
| LAC. CODE 1000                              |  |  |  |  |  |  |  |  |  |
| NOV 1973                                    |  |  |  |  |  |  |  |  |  |



FLOOR PLAN  
SCALE 1/4" = 1'-0"





Date: 1/8/90  
Prepared By: LK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 56

Building Type: 32-I

Apartment: —

No. Bedrooms: 2

Area: A

Address: —

Telephone No.: —

Occupied Hours: ALL DAY

No. of Occupants: 2

Average No. of Showers/Day: 1 day/person (2 total)

Average No. of Laundry Loads/Week: 3

Average No. of Times Dishwasher Used/Day: —

Remarks: —

—  
—  
—  
—  
—  
—  
—  
—

2.0 ARCHITECTURAL

*Same as S2*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 117 °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: None  
Insulation Thickness:       

e. Is Hot Water Circulated? no

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Storage
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

same  
as 52

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

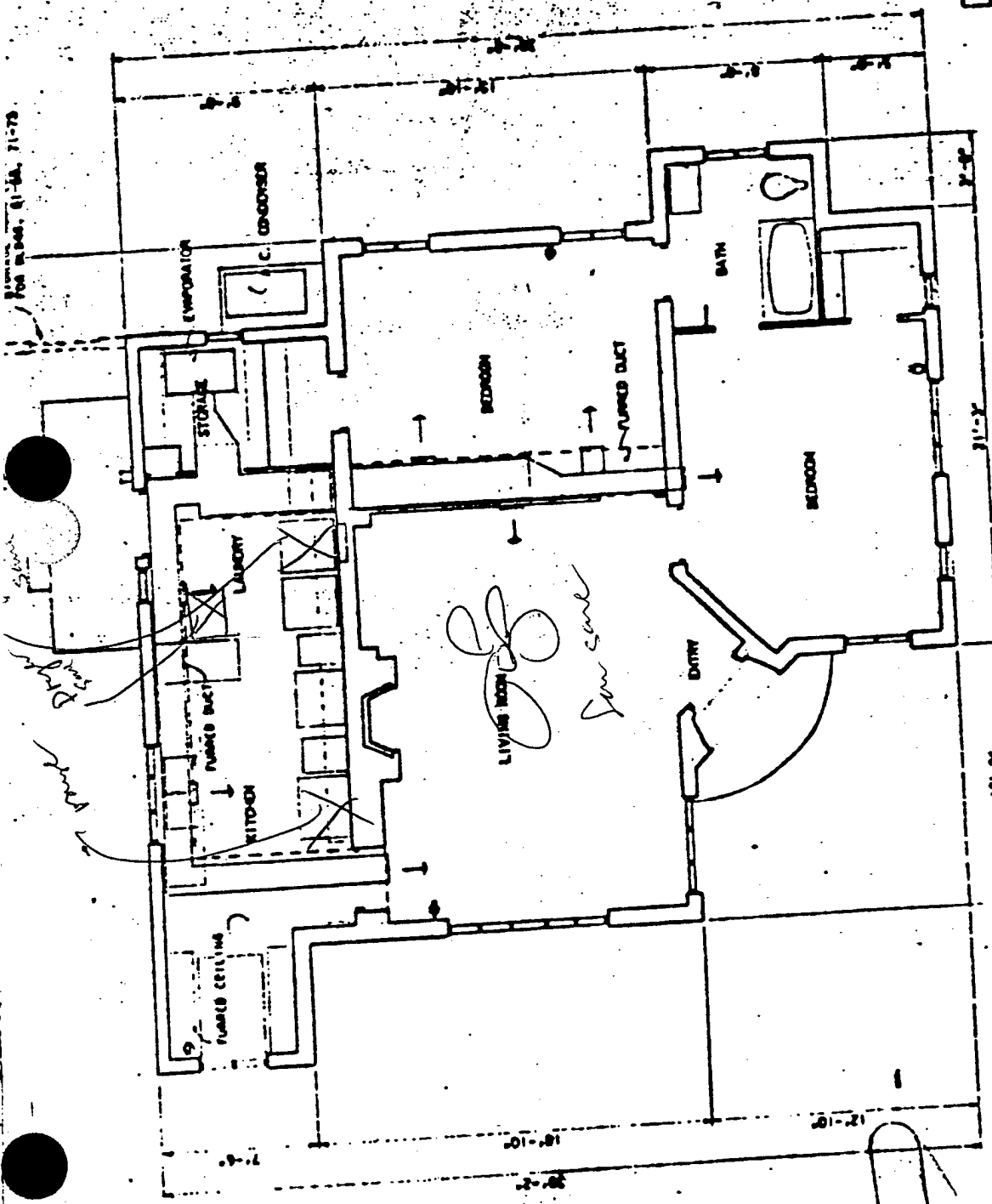
- a. Dishwasher *none*
  - 1) Mfg/Mdl \_\_\_\_\_
  - 2) Galons HW/Wash \_\_\_\_\_
  - 3) Booster Heater Mfg/Mdl \_\_\_\_\_
  - 4) Heating Source \_\_\_\_\_
  - 5) Capacity \_\_\_\_\_
  - 6) Electrical Data \_\_\_\_\_
- b. Clothes Washer *Sum on TV*
  - 1) Mfg/Mdl \_\_\_\_\_
  - 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
  - 3) Gallons HW/Wash \_\_\_\_\_
  - 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit sk. | 20/105 | 117         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |



FOR INFO, Q1-44, 71-73.



| BUILDING NUMBERS |     | SCHOOL BUS |      |
|------------------|-----|------------|------|
| 61.              | 62. | 63.        | 64.  |
| 65.              | 66. | 67.        | 68.  |
| 69.              | 70. | 71.        | 72.  |
| 73.              | 74. | 75.        | 76.  |
| 77.              | 78. | 79.        | 80.  |
| 81.              | 82. | 83.        | 84.  |
| 85.              | 86. | 87.        | 88.  |
| 89.              | 90. | 91.        | 92.  |
| 93.              | 94. | 95.        | 96.  |
| 97.              | 98. | 99.        | 100. |

|   |                |    |   |    |              |  |
|---|----------------|----|---|----|--------------|--|
| REQUIRED                                    | FAMILY HISTORY |    | SECRETARY DATA FOR AIR CONTINUOUS PROJECT |    | AREA         |  |
| 23 NOV FAMILY SHOOTING                      | FLOOR PLAN     |    | SOCIETY (U.S. BROTHERS)                   |    | GAMES, MATHS |  |
| U. S. ARMY DISTRICT DIVISION, PACIFIC OCEAN |                |    | CHIEF OF POLICE                           |    |              |  |
| NOVEMBER 1941                               |                |    | MATH                                      |    |              |  |
| LAC. CODE 2270                              |                | 26 | 23  | 27 | 30           |  |

Hand-drawn floor plan of a residential unit, likely a dormitory or small apartment. The plan shows a central living area with a fireplace, a kitchen with a sink and stove, a bathroom, and several bedrooms. Handwritten notes include "Circle 13PL", "2-100A", "2-60A", "2-60B", "2-60C", "2-60D", "2-60E", "2-60F", "2-60G", "2-60H", "2-60I", "2-60J", "2-60K", "2-60L", "2-60M", "2-60N", "2-60O", "2-60P", "2-60Q", "2-60R", "2-60S", "2-60T", "2-60U", "2-60V", "2-60W", "2-60X", "2-60Y", "2-60Z". The plan also includes a "SUNRAY" label and a "FIREPLACE" label.

FLOOR PLAN  
SCALE 1/8" = 1'-0"

**SECRET**

**BUILDING VOUCHERS (1) - 1967 - 1968 - 1969**

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# THE NEW YORK PUBLIC LIBRARY

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३४  
३५  
३६  
३७  
३८

RECEIVED MAY 11 1966

**Section**

**FAMILY HISTORY**

| SECRETARY DATA FOR APO CONTINUING PROJECT | AREA |
|---|------|
| 3 NEW FAMILY SHOOTING                     |      |
| DOOR PLANK                                |      |

| REPORTING OFFICE | REPORTING OFFICER |
|------------------|-------------------|
| ...              | ...               |

U. S. ARMY DISTRICT DIVISION, PACIFIC OCEAN  
COMAND OF DISTRICT

11-11-61

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 一 | 又 | 又 | 又 | 又 | 又 |
|---|---|---|---|---|---|

|   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

Date: 1/8/90  
Prepared By: LK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 58

Building Type: 32-1

Apartment: —

No. Bedrooms: 2

Area: A

Address: —

Telephone No.: —

Occupied Hours: work every

No. of Occupants: 2

Average No. of Showers/Day: 4 ~~per person~~

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: —

Remarks: —

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

*Same as 52*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

*not taken wash just done no HW*

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: None  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? No

- 1) Condition of circulator \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- Same as 52*
- a. Location \_\_\_\_\_
  - b. Areas Served \_\_\_\_\_
  - c. Manufacturer and Model \_\_\_\_\_
  - d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
  - e. Type Heaters & Quantities:
    - 1) Storage \_\_\_\_\_
    - 2) Instantaneous \_\_\_\_\_
    - 3) Semi-Instantaneous \_\_\_\_\_
  - f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

- a. Dishwasher *None*
  - 1) Mfg/Mdl \_\_\_\_\_
  - 2) Galons HW/Wash \_\_\_\_\_
  - 3) Booster Heater Mfg/Mdl \_\_\_\_\_
  - 4) Heating Source \_\_\_\_\_
  - 5) Capacity \_\_\_\_\_
  - 6) Electrical Data \_\_\_\_\_
- b. Clothes Washer *Same as SW*
  - 1) Mfg/Mdl \_\_\_\_\_
  - 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
  - 3) Gallons HW/Wash \_\_\_\_\_
  - 4) Electrical Data \_\_\_\_\_

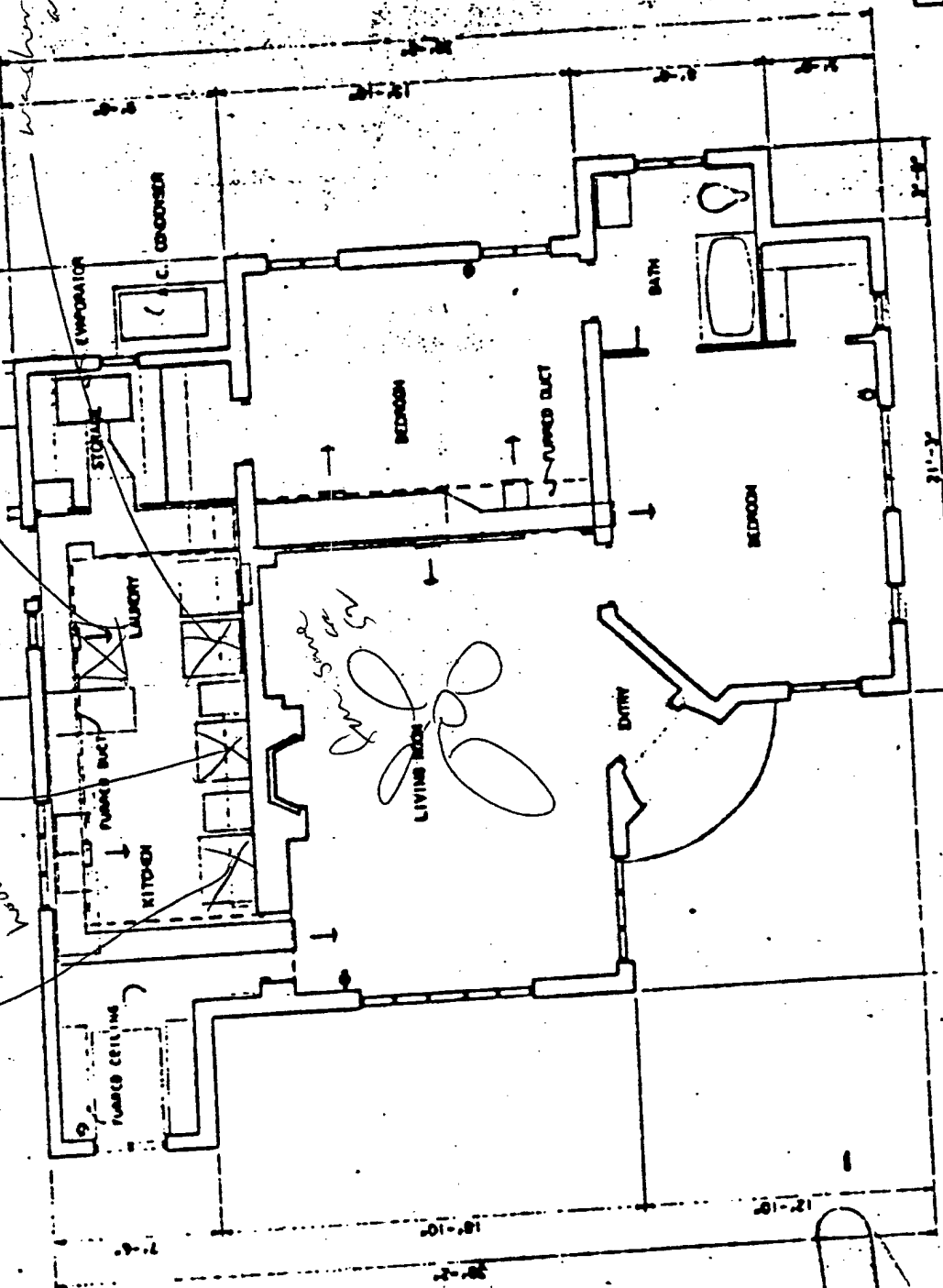
### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit SK  | 21/105 | —           |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

STORAGE ROOM (BUNKER)  
FOR M-16, M-14, M-1

Handwritten notes:  
- Kitchen  
- Living Room  
- Bedroom  
- Bath  
- Entry  
- Staircase  
- Hallway  
- Storage Room  
- Bunkers  
- Dryer  
- Washer  
- Save on S2

58



FLOOR PLAN  
SCALE 1/8" = 1'-0"

GRAPHIC SCALE 1/8" = 1'-0"

BUILDING NUMBERS (in the storage room)  
50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

BUILDING NUMBERS (in the storage room)  
50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

SEE SITE PLAN SHEET 58 FOR LOCATION

|   |                |
|---|----------------|
| REVISED                                     |                |
| FAMILY ROOM                                 |                |
| SUBMITTAL DATA FOR AIR CONDITIONING PROJECT |                |
| 23 NO. FAMILY BUNKERS                       |                |
| FLOOR PLAN                                  |                |
| SHEET NO. 58                                |                |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN |                |
| CORPS OF ENGINEERS                          |                |
| HONOLULU, HAWAII                            |                |
| LOC. CODE 5800                              | 24 25 26 27 28 |
| NOV 1973                                    |                |

[illegible]

U. S. DEPARTMENT OF THE ARMY  
OFFICE OF THE CHIEF OF STAFF  
WASHINGTON, D. C. 20315

BUILDING NUMBERS (in proper sequence) 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043

|   |                |    |    |    |    |
|---|----------------|----|----|----|----|
| REVISED                                     | FAMILY HISTORY |    |    |    |    |
| BUREAU DATA FOR AIR CONTINUOUS PROJECT      |                |    |    |    |    |
| 23 NOB FAMILY STARTING                      |                |    |    |    |    |
| FLOOR PLAN                                  |                |    |    |    |    |
| NOVEMBER 1964                               |                |    |    |    |    |
| U. S. ARMY DISTRICT DIVISION, PACIFIC OCEAN |                |    |    |    |    |
| COMPS OF BUREAU                             |                |    |    |    |    |
| HOSPITAL REPORT                             |                |    |    |    |    |
| LAC. CASE 1964                              |                | 26 | 25 | 27 | 24 |

UNIT TYPE 32-II

Date: 1/8/90  
Prepared By: CK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 61

Building Type: 32 TL

Apartment: —

No. Bedrooms: 2

Area: A

Address: —

Telephone No.: —

Occupied Hours: ~~8:00-10:00~~ 2:30 PM on

No. of Occupants: 3

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 6

Average No. of Times Dishwasher Used/Day: —

Remarks: —  
—  
—  
—  
—  
—  
—  
—

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

*Same as type 32-I  
only diff. is this unit  
has fenced in exterior  
storage area*



Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

Central Plant One System per Building  
Several Small Systems per Building  
Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 122 °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: None visible  
Insulation Thickness:

e. Is Hot Water Circulated? None

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- same as 32-I*
- a. Location
  - b. Areas Served
  - c. Manufacturer and Model
  - d. Energy (Oil, Gas, Electric, Coal, Etc.)
  - e. Type Heaters & Quantities:
    - 1) Storage
    - 2) Instantaneous
    - 3) Semi-Instantaneous
  - f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl hond \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

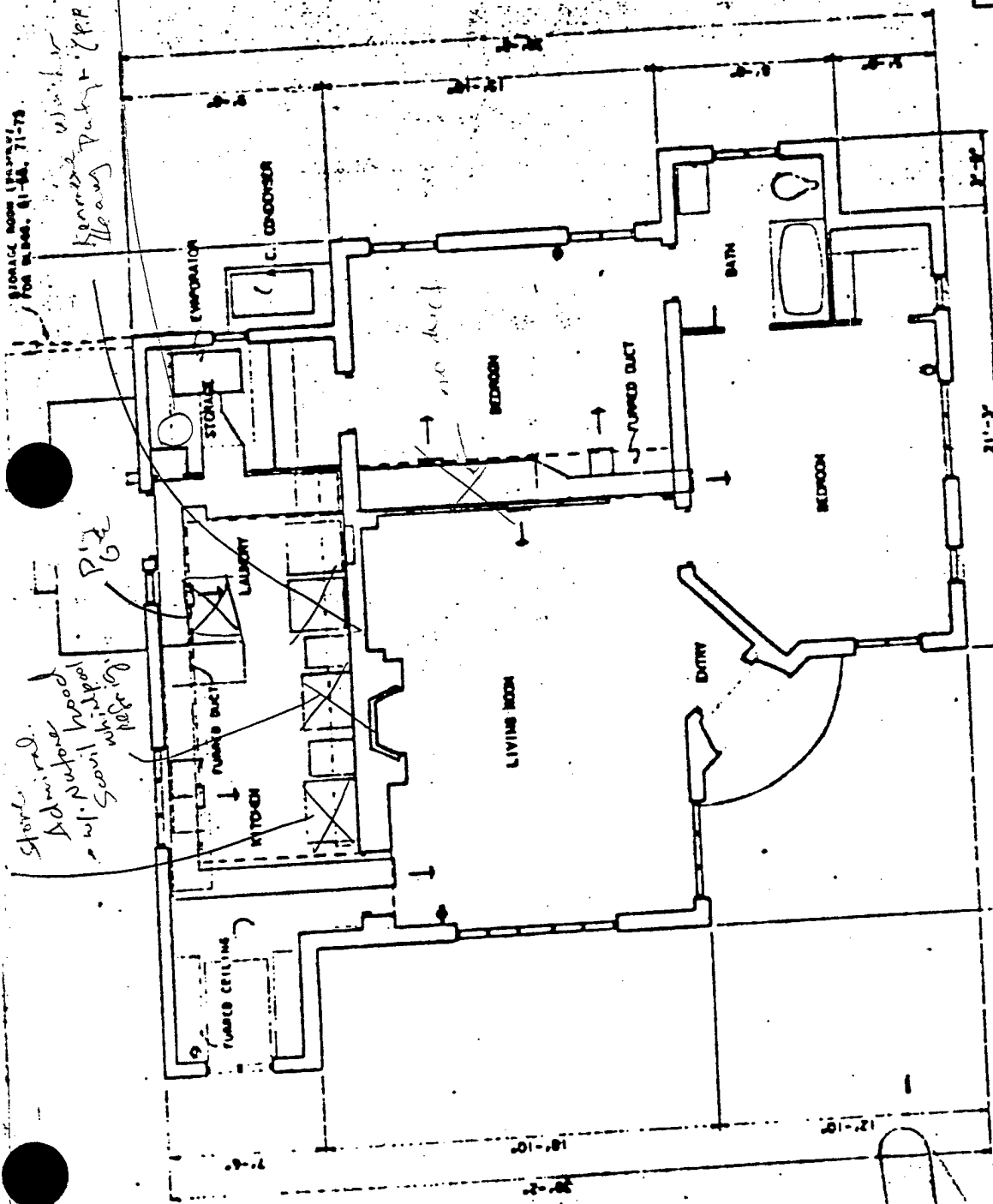
| Fixture     | Flow   | Water Temp. | Remarks |
|-------------|--------|-------------|---------|
| Waster Sink | 42/105 | 122°        |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |

STORAGE ROOM (REAR)  
FOR M. 61-54, 71-75

Storage  
Admiral  
w/ N. P. Wood  
Scovil Wood  
wh. 19  
P. 12

Heavy Duty (P.P. 10)  
fender  
+ 4x8 5' x 10'  
EWH

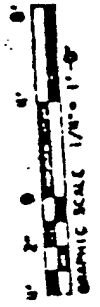
#61



BUILDING NUMBERS (1-1000) (STANDARD ROOM)  
 51, 52, 53, 54, 55, 56, 57, 58, 59, 60  
 BUILDING NUMBERS (WITH STORAGE ROOM)  
 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80  
 SEE SITE PLAN SHEET 60 FOR LOCATION

|   |             |
|---|-------------|
| ACTIVITIES                                    |             |
| FAMILY HOUSE                                  |             |
| SUBSTANTIAL DATA FOR AIR CONDITIONING PROJECT |             |
| 23 NO. 1 FAMILY BARRACKS                      |             |
| FLOOR PLAN                                    |             |
| SOUTHFIELD BARRACKS                           |             |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN   |             |
| CORPS OF ENGINEERS                            |             |
| HONOLULU, HAWAII                              |             |
| LOC. CODE 5270                                | 25 26 27 28 |
| NOV 1973                                      |             |

FLOOR PLAN  
 SCALE 1/4" = 1'-0"



Storage room (bushes)  
for m.d.s. 81-82, 71-72

7-26

BUILDING NUMBERS (see first standard sheet)

81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

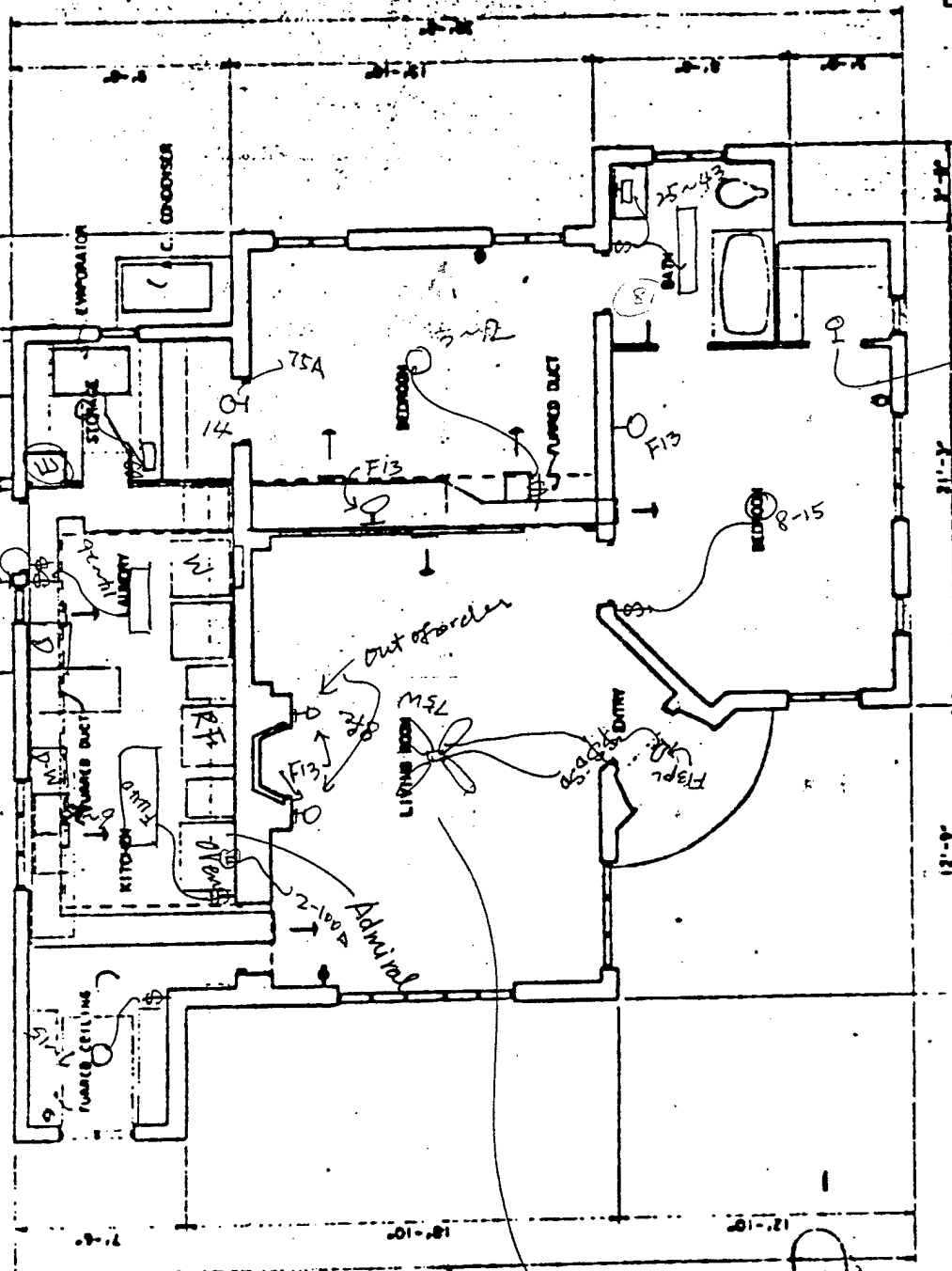
BUILDING NUMBERS (see second standard sheet)

101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120

SEE SITE PLAN SHEET 100 FOR LOCATION

|   |                |
|---|----------------|
| REVISED                                     |                |
| FAMILY ROOM                                 |                |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECT |                |
| 23 NO. FAMILY ROOMS                         | AREA           |
| FLOOR PLAN                                  |                |
| SCHEDULED WORK                              |                |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN |                |
| CORPS OF ENGINEERS                          |                |
| HONOLULU, HAWAII                            |                |
| LAC. CODE 8200                              | 24 25 26 27 28 |

NOV 1973



FLOOR PLAN  
SCALE 1/4" = 1'-0"

GRAPHIC SCALE 1/4" = 1'-0"

Date: 1/8/90  
Prepared By: LK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 604

Building Type: 32-II

Apartment: \_\_\_\_\_

No. Bedrooms: 2

Area: A

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: ←

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 32-I

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

Central Plant One System per Building  
Several Small Systems per Building  
Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: No  
Insulation Thickness:

e. Is Hot Water Circulated? No

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Storage Same as 32-1
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
- 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_  
 h. Type Controls (Air, Steam, Electric) \_\_\_\_\_  
 i. When Installed & Condition \_\_\_\_\_  
 j. Heater Temperature Setting 44  
 k. Average Water Maintained Temperature \_\_\_\_\_  
 l. Temperature Differential (j) - (k) \_\_\_\_\_  
 m. Is Hot Water Supply Adequate No  
 n. Insulation Thickness None  
 o. Insulation Material "  
 p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

- a. Dishwasher None

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

- b. Clothes Washer

- 1) Mfg/Mdl Same as S2
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

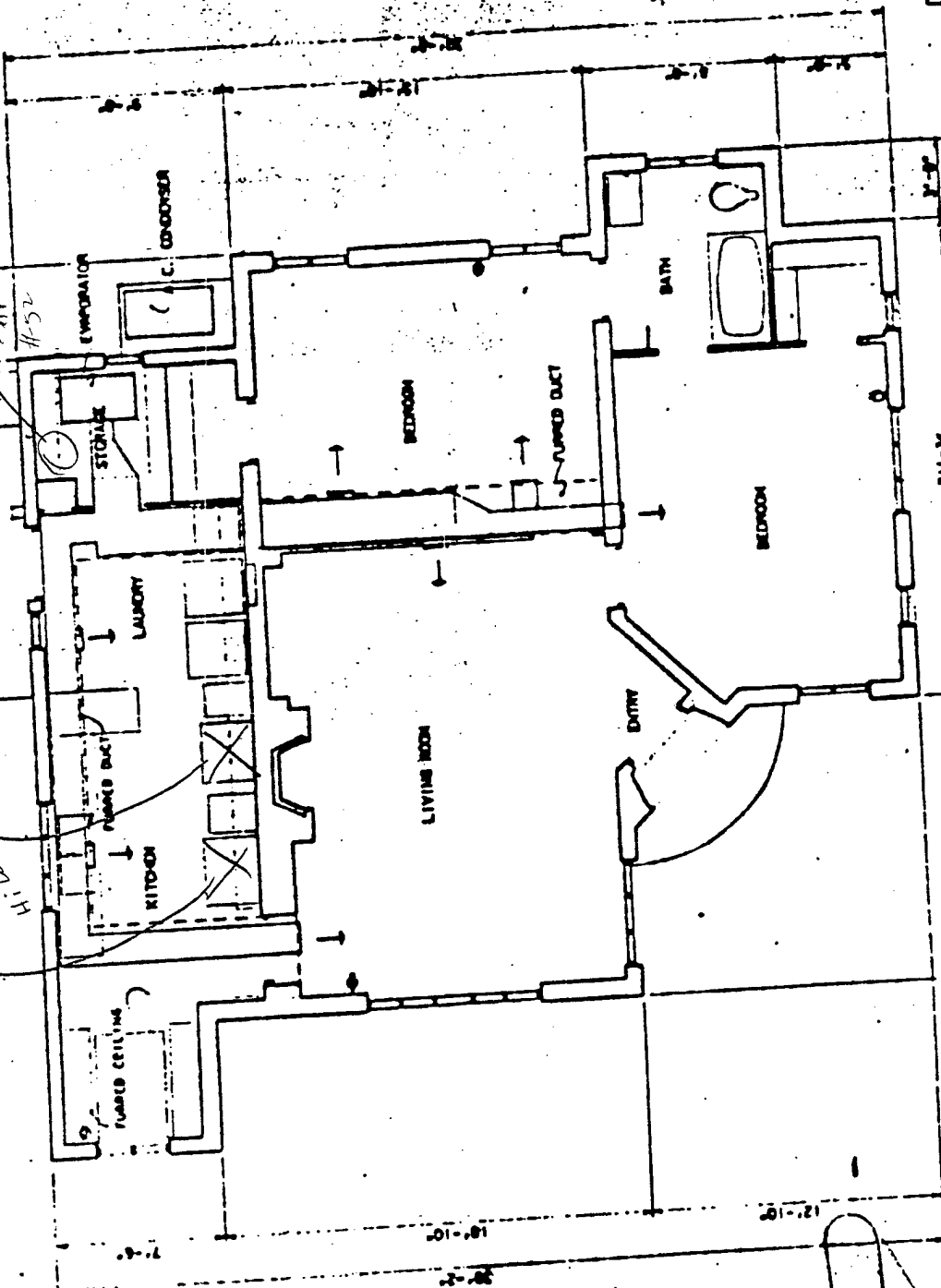
### 3.4 HOT WATER FIXTURES

| Fixture    | Flow               | Water Temp. | Remarks |
|------------|--------------------|-------------|---------|
| Waster Tub | <u>4 l in 10 s</u> | <u>122</u>  |         |
| Shwr       | <u>1 l / 10 s</u>  | <u>120</u>  |         |
|            |                    |             |         |
|            |                    |             |         |
|            |                    |             |         |
|            |                    |             |         |
|            |                    |             |         |
|            |                    |             |         |
|            |                    |             |         |



417  
Wood  
Scavill  
J. H. Wood  
Scavill  
J. H. Wood  
Scavill

#64 R.



FLOOR PLAN  
SCALE 1/4" = 1'-0"

GRAPHIC SCALE 1/4" = 1'-0"

BUILDING NUMBERS (11'x14' STANDARD BOARD)

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| 48. | 50. | 51. | 52. | 53. |
| 54. | 55. | 56. | 57. | 58. |

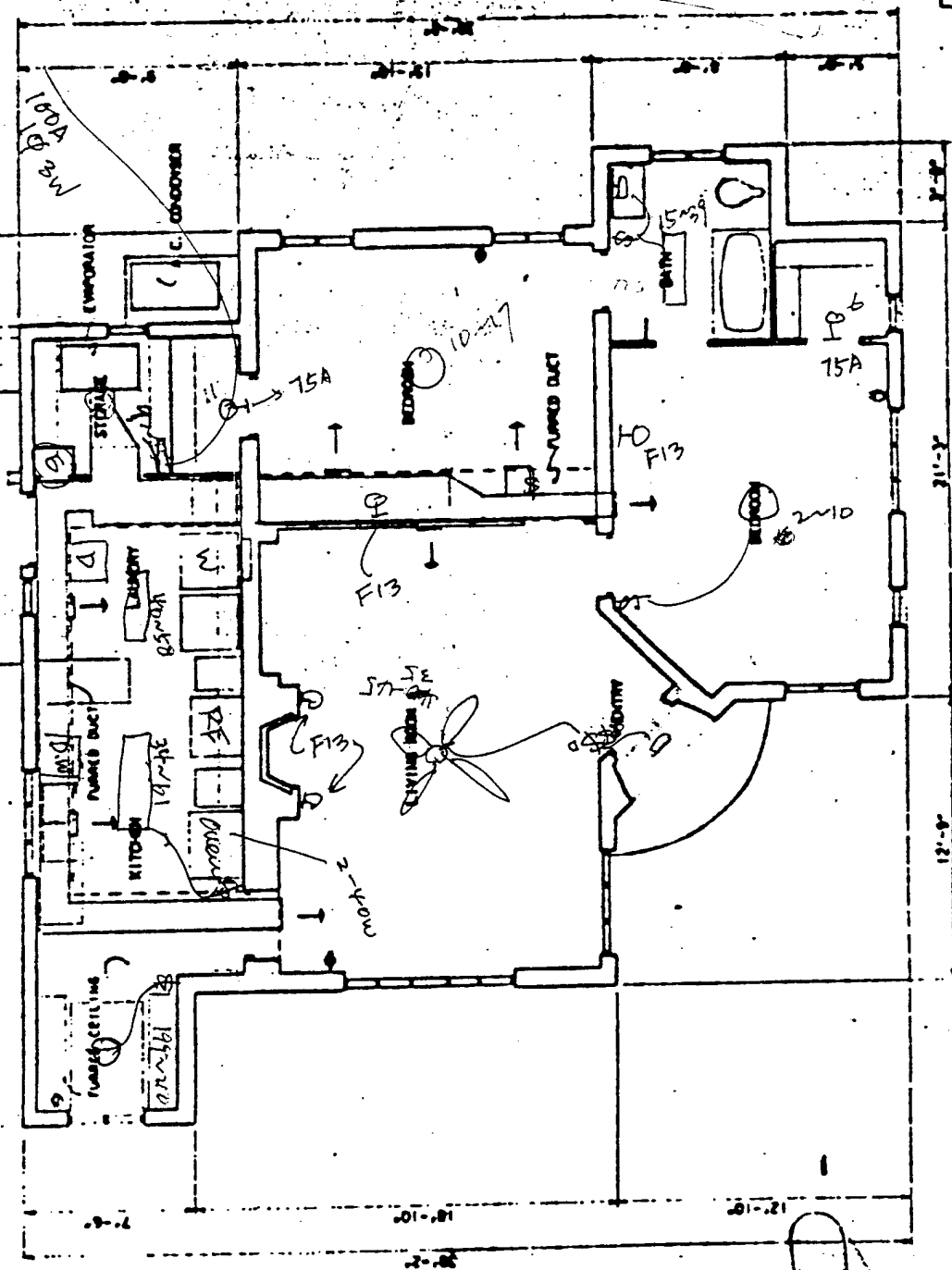
BUILDING NUMBERS (16'x16' STANDARD BOARD)

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| 61. | 62. | 63. | 64. | 65. |
| 71. | 72. | 73. | 74. | 75. |

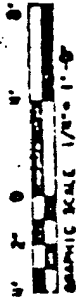
SEE SITE PLAN SHEET 10 FOR LOCATIONS

|   |    |    |       |
|---|----|----|-------|
| REVIEWS                                       |    |    |       |
| FAMILY NAME                                   |    |    |       |
| BIBLIOGRAPHIC DATA FOR AIR CONTINUOUS PROJECT |    |    |       |
| AREA  |    |    |       |
| 23 NOB FAMILY SPLITTING                       |    |    |       |
| FLOR PLANT                                    |    |    |       |
| SOCIETAL SENSATION                            |    |    |       |
| U. S. ARMY DISTRICT DIVISION, PACIFIC OCEAN   |    |    |       |
| COMPS OF BUILDINGS                            |    |    |       |
| NOBILITY MONTH                                |    |    |       |
| LAC CODE 1079                                 | 25 | 23 | OF 34 |

STORAGE ROOM (PUSHES)  
FOR M. 404, 41-44, 71-75



FLOOR PLAN  
SCALE 1/8" = 1'-0"



77-11

BUILDING NUMBERS (FOR BEST STUDENT COPY)  
40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

BUILDING NUMBERS (FOR BEST STUDENT COPY)  
40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

SEE SITE PLAN SHEET 77-11 FOR LOCATION

| REVISED                                     |      |
|---|------|
| FAMILY HOUSING                              |      |
| BUDGETARY DATA FOR THE CONSTRUCTION PROJECT |      |
| 23 NO. FAMILY BARRACKS                      | AREA |
| FLOOR PLAN                                  |      |
| NO. 100 FIELD BARRACKS                      |      |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN |      |
| CORPS OF ENGINEERS                          |      |
| NO. 100 FIELD BARRACKS                      |      |
| LDC CODE 1000                               |      |
| 20  | 25   |
| 25  | 30   |
| 30  | 35   |

NOV 1975

Date: 1/8/90  
Prepared By: LK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 71

Building Type: 32-II

Apartment: \_\_\_\_\_

No. Bedrooms: \_\_\_\_\_

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL Day

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 2 per Day

Average No. of Times Dishwasher Used/Day: —

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as 32-I

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

Central Plant One System per Building  
Several Small Systems per Building  
Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 12 °F  
°F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:   
Insulation Thickness: None

e. Is Hot Water Circulated? No

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- same as 32-I*
- a. Location Storage
  - b. Areas Served
  - c. Manufacturer and Model
  - d. Energy (Oil, Gas, Electric, Coal, Etc.)
  - e. Type Heaters & Quantities:
    - 1) Storage
    - 2) Instantaneous
    - 3) Semi-Instantaneous
  - f. Heater Size and Storage Capacity 52 gal.

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

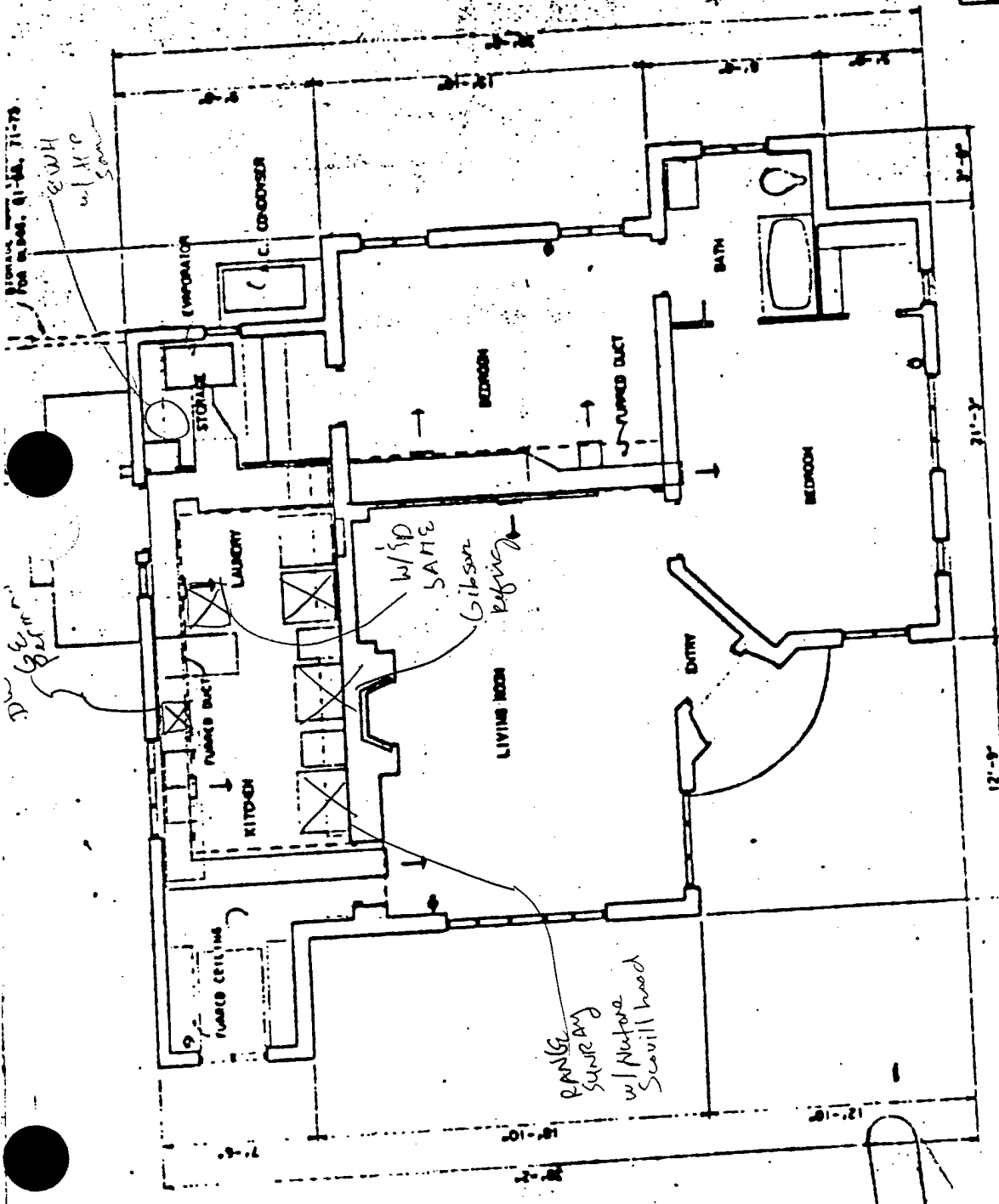
### 3.4 HOT WATER FIXTURES

| Fixture    | Flow     | Water Temp. | Remarks |
|------------|----------|-------------|---------|
| Washer Tub | 4.5/10.5 | 124°F       |         |
|            |          |             |         |
|            |          |             |         |
|            |          |             |         |
|            |          |             |         |
|            |          |             |         |
|            |          |             |         |
|            |          |             |         |
|            |          |             |         |
|            |          |             |         |



01-60, 71-73  
J.H. 1m  
J.H. 1m

Dr. G. W. [unclear]



**BUILDING MATERIALS (1) - 1964 - 1965**

Building Materials (see also 100-100000)

SEE SITE PLAN SHEET 00 FOR LOCATION

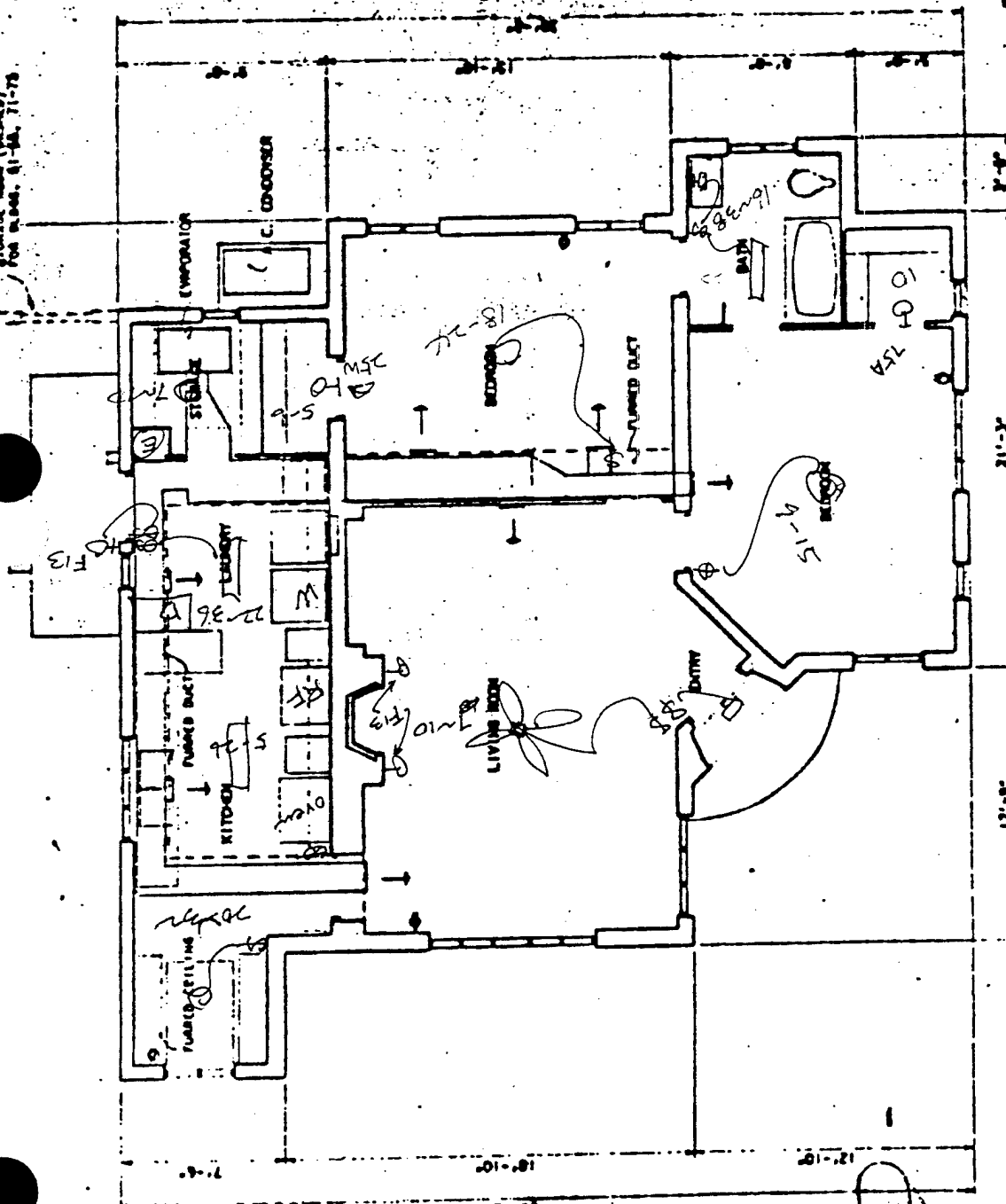
|  |                |    |    |    |     |  |  |
|--|----------------|----|----|----|-----|--|--|
| REVISED  | FAMILY HISTORY |    |    |    |     |  |  |
| BIOGRAPHY DATA FOR APO CONTINUING PROJECT                        |                |    |    |    |     |  |  |
| 23 HQS FAMILY SAMPLES  |                |    |    |    |     |  |  |
| FLOOR PLAN   |                |    |    |    |     |  |  |
| NOVEMBER SAMPLES   |                |    |    |    |     |  |  |
| U. S. ARMY ENGINEER DIVISION PACIFIC OCEAN<br>CORPS OF ENGINEERS |                |    |    |    |     |  |  |
| NOVEMBER MONTH   |                |    |    |    |     |  |  |
| LAC CODE 8790  |                | 26 | 23 | OF | 346 |  |  |

Aug 1973

FLOOR PLAN  
SCALE 1/8" = 1'-0"

GRAPHIC SCALE 1/8" = 1'-0"

513



SCALE 1/4" = 1'-0"

SECRET

**POSTING**

[illegible]

SECRETARY DATA FOR AIR COMPTROLLER REPORT

1000 1/2

100-111111 (100-111111) (100-111111)

U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN

1977-1980 10 6000

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

|   |    |    |    |   |             |
|---|----|----|----|---|-------------|
| 1 | PC | AN | Q2 | R | 0621 1000 7 |
|---|----|----|----|---|-------------|

1975

\_\_\_\_\_

41. In some cases, the data may be inconsistent with the model. For example, the data may show a significant increase in the number of cases, while the model predicts a decrease. This could be due to a number of factors, such as changes in the population, changes in the environment, or changes in the data collection process. It is important to carefully examine the data and the model to determine the cause of the inconsistency.



Date: 1/8/90  
Prepared By: LK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 72

Building Type: 32 II

Apartment: \_\_\_\_\_

No. Bedrooms: 2

Area: A

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: —

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*same as 32-I*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as 32-I

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl SAME AS UNIT 61 \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm ☒ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture    | Flow   | Water Temp. | Remarks |
|------------|--------|-------------|---------|
| WASHER TUB | 42/105 | 138°F       |         |
|            |        |             |         |
|            |        |             |         |
|            |        |             |         |
|            |        |             |         |
|            |        |             |         |
|            |        |             |         |
|            |        |             |         |
|            |        |             |         |
|            |        |             |         |

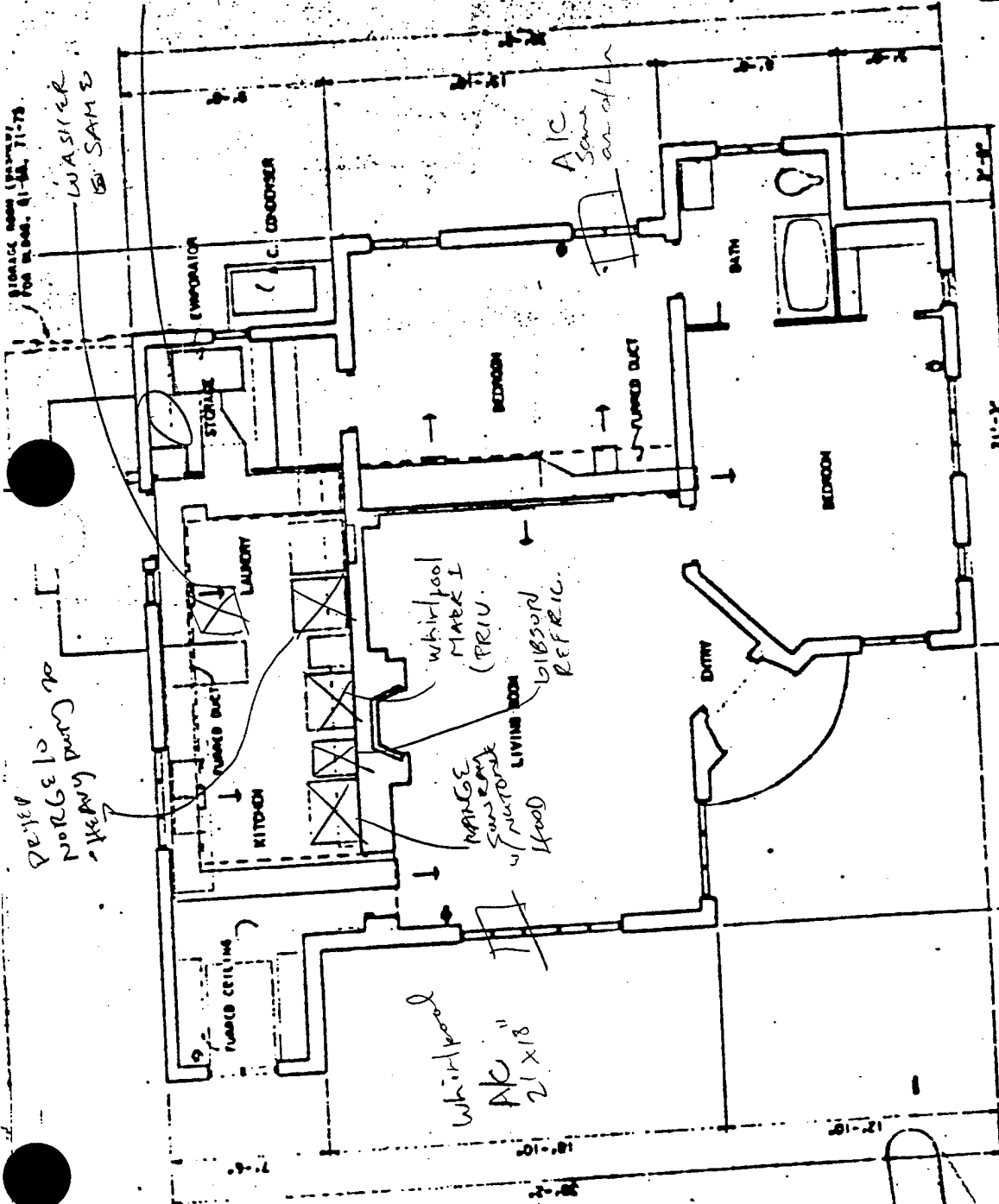
STORAGE ROOM (JANUARY)  
FOR M. 404, 41-44, 71-75

at end of 3rd floor  
at 3720 ft  
plotted

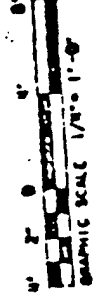
WASHER  
S. SAM E

SA 115

7172 R



FLOOR PLAN  
SCALE 1/8" = 1'-0"



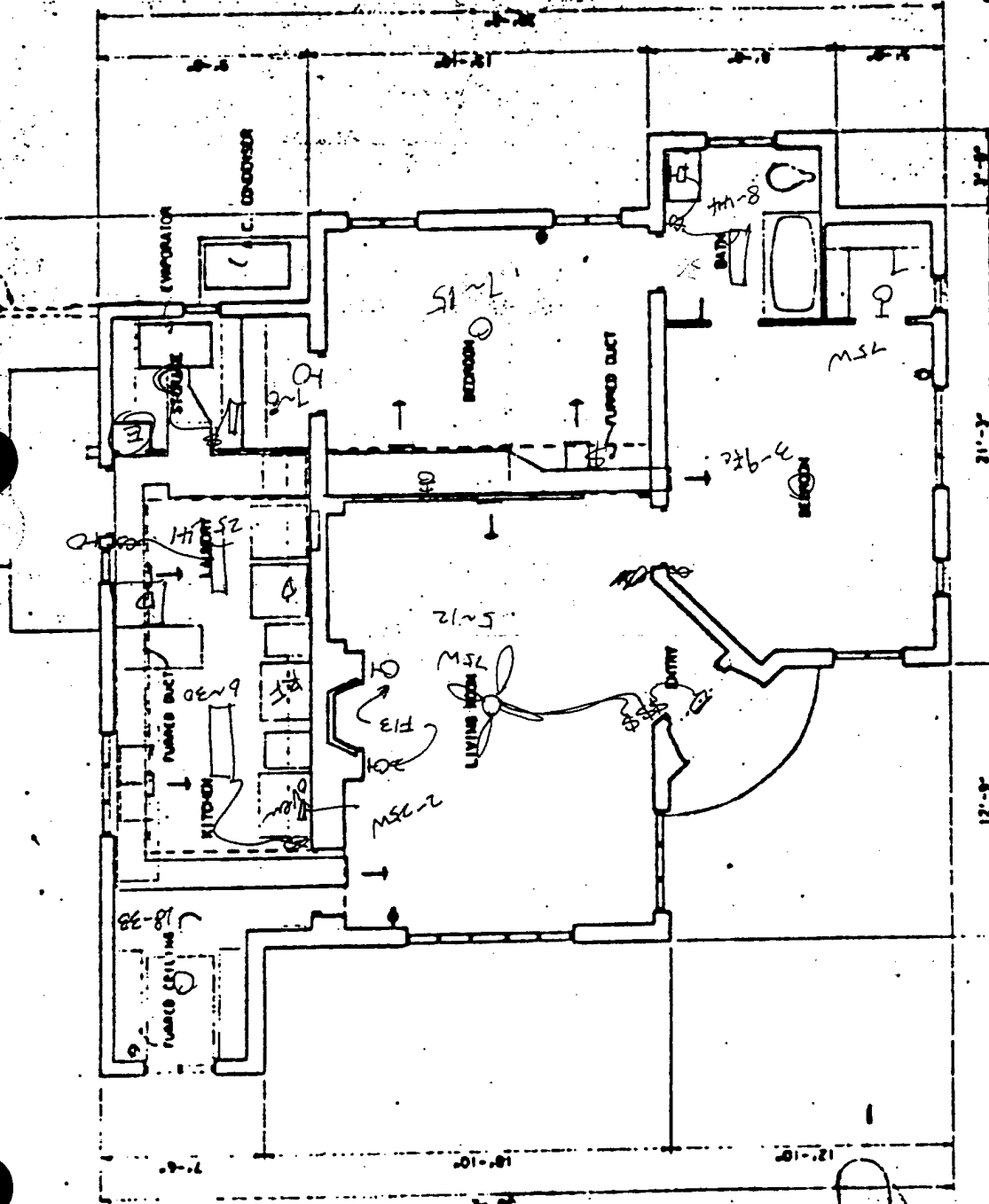
BUILDING NUMBERS (in the storage room)  
20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

BUILDING NUMBERS (in the storage room)  
20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

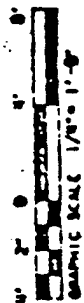
SEE SITE PLAN SHEET 100 FOR LOCATION

| REVISED                                     |                               |
|---|-------------------------------|
| FAMILY ROOM                                 |                               |
| BUREAU DATA FOR THE CONTINUOUS PROJECT      |                               |
| 20 NO. FAMILY BATHING                       |                               |
| FLOOR PLAN                                  |                               |
| SOMERSET BARRACKS                           |                               |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN |                               |
| CORPS OF ENGINEERS                          |                               |
| HONOLULU, HAWAII                            |                               |
| LOC. CODE 0250                              | 20 21 22 23 24 25 26 27 28 29 |
| NOV 1973                                    |                               |

STORAGE ROOM (PLANNED)  
FOR M.B. 81-56, 71-75



FLOOR PLAN  
SCALE 1/4" = 1'-0"



32-1

BUILDING NUMBERS (SEE SHEET 32-1)

81. 51. 52. 53. 54. 55. 56. 57. 58. 59.

BUILDING NUMBERS (SEE SHEET 32-1)

61. 62. 63. 64. 65. 66. 67. 68. 69. 70.

SEE SITE PLAN SHEET 32-1 FOR LOCATION

REVISIONS

|   |    |    |       |
|---|----|----|-------|
| FAMILY HOUSING                              |    |    |       |
| BASIC DATA FOR AIR CONDITIONING PROJECT     |    |    |       |
| 23 NO. FAMILY BUILDINGS                     |    |    |       |
| FLOOR PLAN                                  |    |    |       |
| NO. OF FLOOR PLANS                          |    |    |       |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN |    |    |       |
| CORPS OF ENGINEERS                          |    |    |       |
| HONOLULU, HAWAII                            |    |    |       |
| LAC. CODE 5250                              | 25 | 23 | OF 34 |
| NOV 1973                                    |    |    |       |

UNIT TYPE 32-III

Date: 1/10/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 607

Building Type: 32-111

Apartment: \_\_\_\_\_

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 17

Average No. of Times Dishwasher Used/Day: 3x Weeks

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## 2.0 ARCHITECTURAL

No Crawl space, under house

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Conc. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Asphalt Shingles

- Wood Deck

Conc. Ceiling

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 130 °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: Visible piping not  
Insulation Thickness:       

e. Is Hot Water Circulated? No

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Storage
- b. Areas Served All
- c. Manufacturer and Model Hout ESC-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.) E
- e. Type Heaters & Quantities:
  - 1) Storage ✓
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 106 gal

- g. Heating Capacity 2250 W  
h. Type Controls (Air, Steam, Electric) ✓  
i. When Installed & Condition Good  
j. Heater Temperature Setting \_\_\_\_\_  
k. Average Water Maintained Temperature \_\_\_\_\_  
l. Temperature Differential (j) - (k) \_\_\_\_\_  
m. Is Hot Water Supply Adequate \_\_\_\_\_  
n. Insulation Thickness \_\_\_\_\_  
o. Insulation Material \_\_\_\_\_  
p. Timeclock and Hrs Set N°

### 3.3 HW USING APPLIANCES

*see sketch*

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

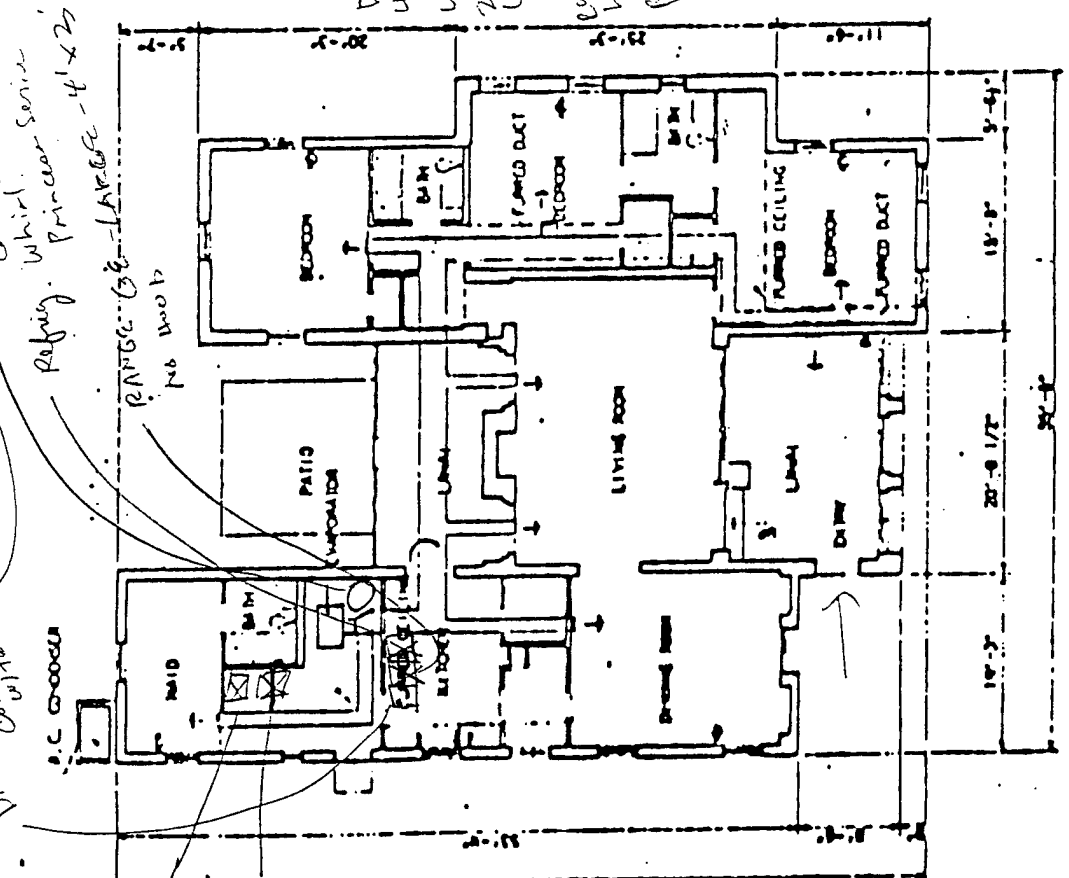
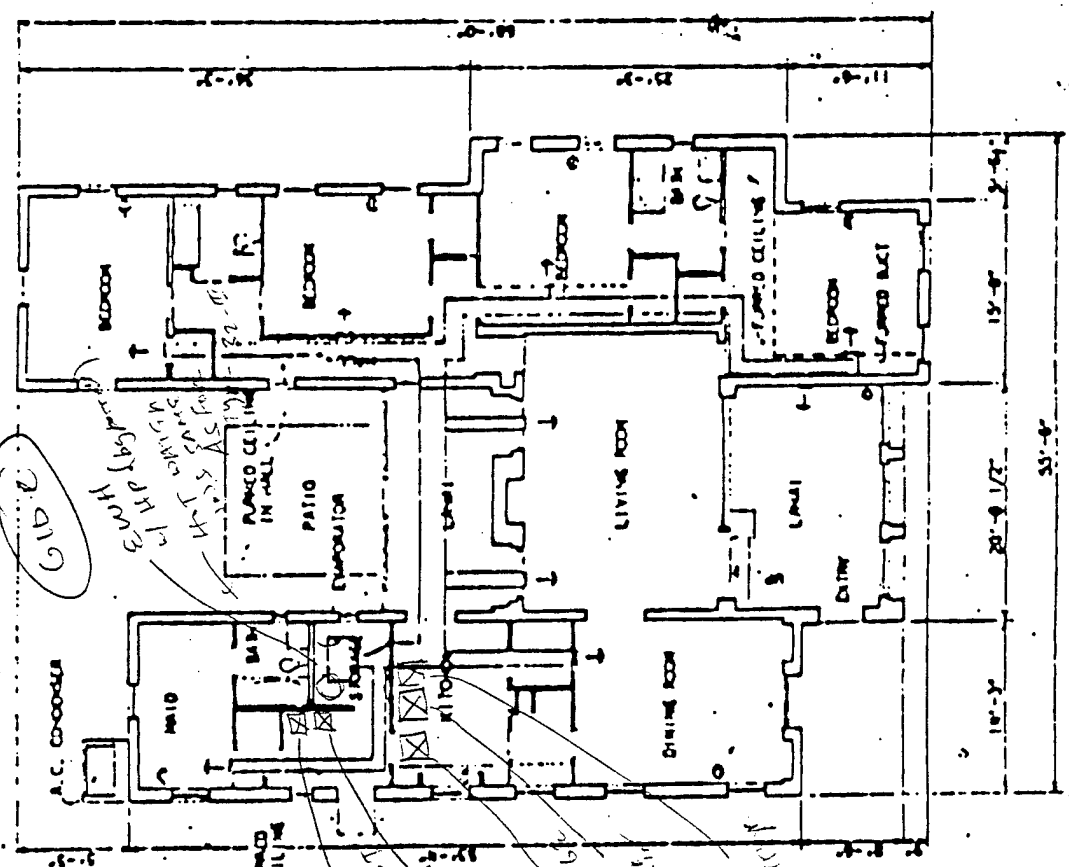
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture                | Flow          | Water Temp.  | Remarks |
|------------------------|---------------|--------------|---------|
| <u>Maids Bath</u>      |               |              |         |
| <u>Shower Head</u>     | <u>22/10s</u> | <u>130°F</u> |         |
| <u>Laundry Tub</u>     | <u>22/10s</u> | <u>130°F</u> |         |
| <u>Hall Bath. LAV.</u> | <u>22/10s</u> | <u>124°F</u> |         |
|                        |               |              |         |
|                        |               |              |         |
|                        |               |              |         |
|                        |               |              |         |
|                        |               |              |         |

Piping, insul. 4/16  
 (P) Piping, insul. 4/16  
 (P) Piping, insul. 4/16  
 (P) Piping, insul. 4/16

607 R  
 607 R  
 607 R  
 607 R



FLOOR PLAN - 1/8  
 SCALE 1/8" = 1'-0"

TYPE 32-IV

BUILDING NUMBERS  
 601, 602, 603, 604, 605, 606  
 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

FLOOR PLAN - 1/8  
 SCALE 1/8" = 1'-0"

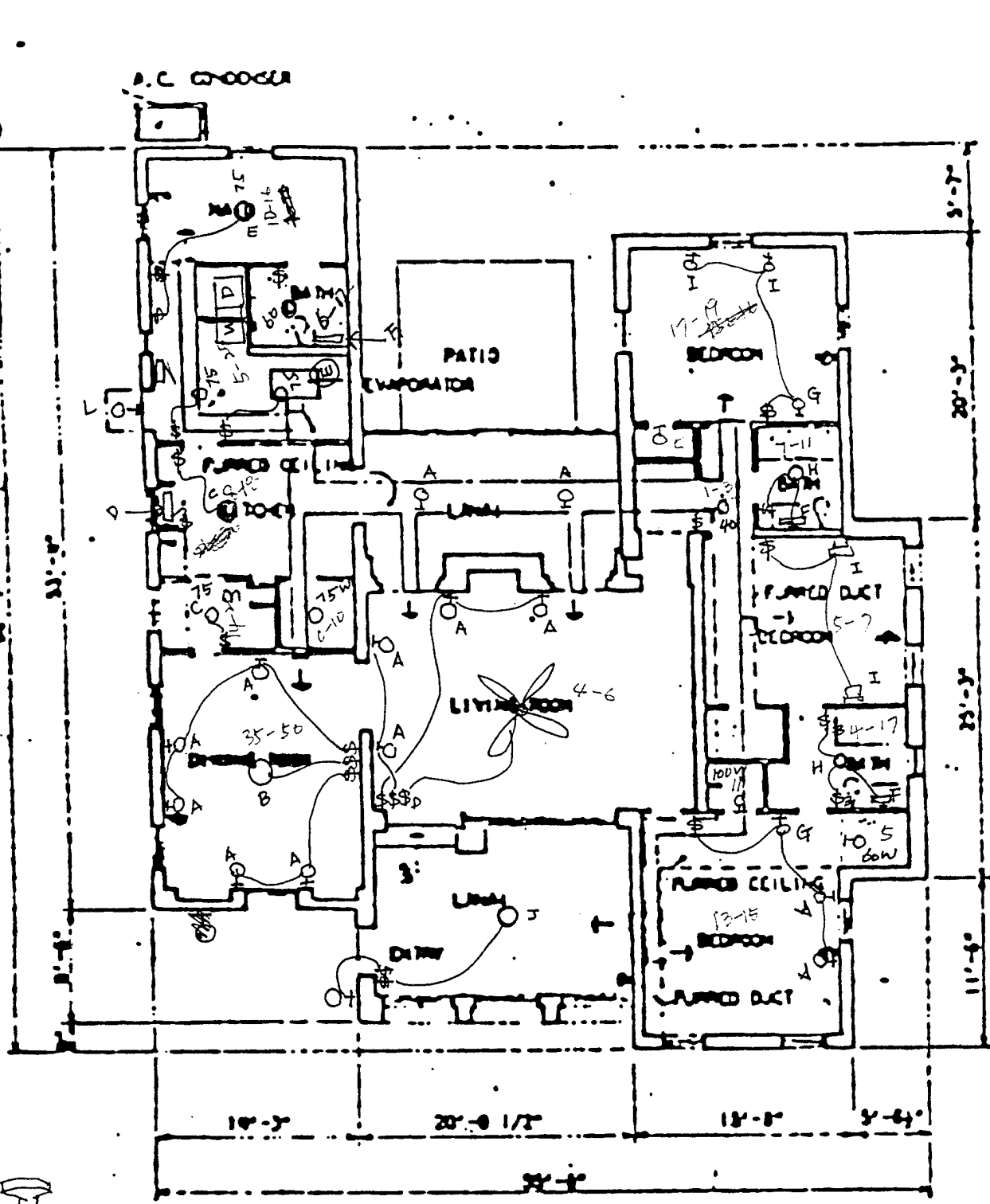
TYPE 32-III

BUILDING NUMBERS  
 601, 602, 603, 604, 605, 606  
 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

| REVISION   |
|--|
| 1. FAMILY HOUSING                                  |
| 2. BUDGETARY DATA FOR ALL LOCATIONS                |
| 3. OFFICE QUARTERS, 100000 (11/50)                 |
| 4. FLOOR PLAN                                      |
| 5. SCALE: 1/8" = 1'-0"                             |
| 6. U. S. ARMY ENGINEERING DIVISION, PACIFIC REGION |
| 7. CORPS OF ENGINEERS                              |

0' 1" 2" 3" 4" 5" 6" 7" 8" 9" 10'

- ①
- ②
- ③
- ④
- ⑤
- ⑥
- ⑦
- ⑧
- ⑨
- ⑩
- ⑪
- ⑫
- ⑬
- ⑭
- ⑮
- ⑯
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FLOOR PLAN - 3 IN  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS

|      |      |      |      |      |
|------|------|------|------|------|
| 001. | 003. | 005. | 007. | 009. |
| 011. | 013. | 015. | 017. | 019. |
| 021. | 023. | 025. | 027. | 029. |
| 031. | 033. | 035. | 037. | 039. |
| 041. | 043. | 045. | 047. | 049. |
| 051. | 053. | 055. | 057. | 059. |
| 061. | 063. | 065. | 067. | 069. |
| 071. | 073. | 075. | 077. | 079. |
| 081. | 083. | 085. | 087. | 089. |
| 091. | 093. | 095. | 097. | 099. |

Type. 32-III  
607

SEE SIDE PLAN SHEET 11 FOR LOCATION

BUILDING NO.  
001, 003,  
010, 012,

Date: 1/10/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 611

Building Type: 32-111

Apartment: \_\_\_\_\_

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all day

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 6-7

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*same as 607*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

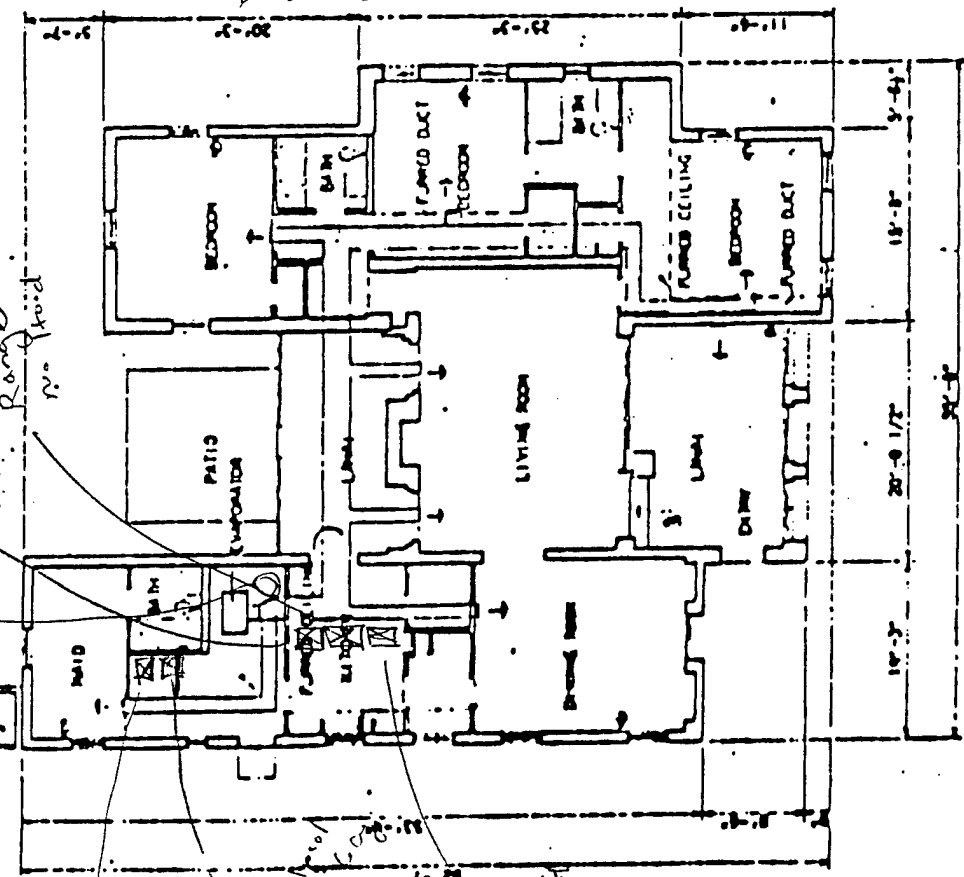
| Fixture               | Flow     | Water Temp. | Remarks |
|-----------------------|----------|-------------|---------|
| Kit. Sink             | 2.5l/10s | 128F        |         |
| Haid's Room<br>Shower | 2.5l/10s | 122F        |         |
|                       |          |             |         |
|                       |          |             |         |
|                       |          |             |         |
|                       |          |             |         |
|                       |          |             |         |
|                       |          |             |         |

#611

WH w/ HP  
C.C. 8' x 10' Typ.  
C.C. 8' x 10' Typ.

Range GE Large Typ  
no hood

Whirl  
Dysar P.C. 600000



FLOOR PLAN - 3 BR  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS

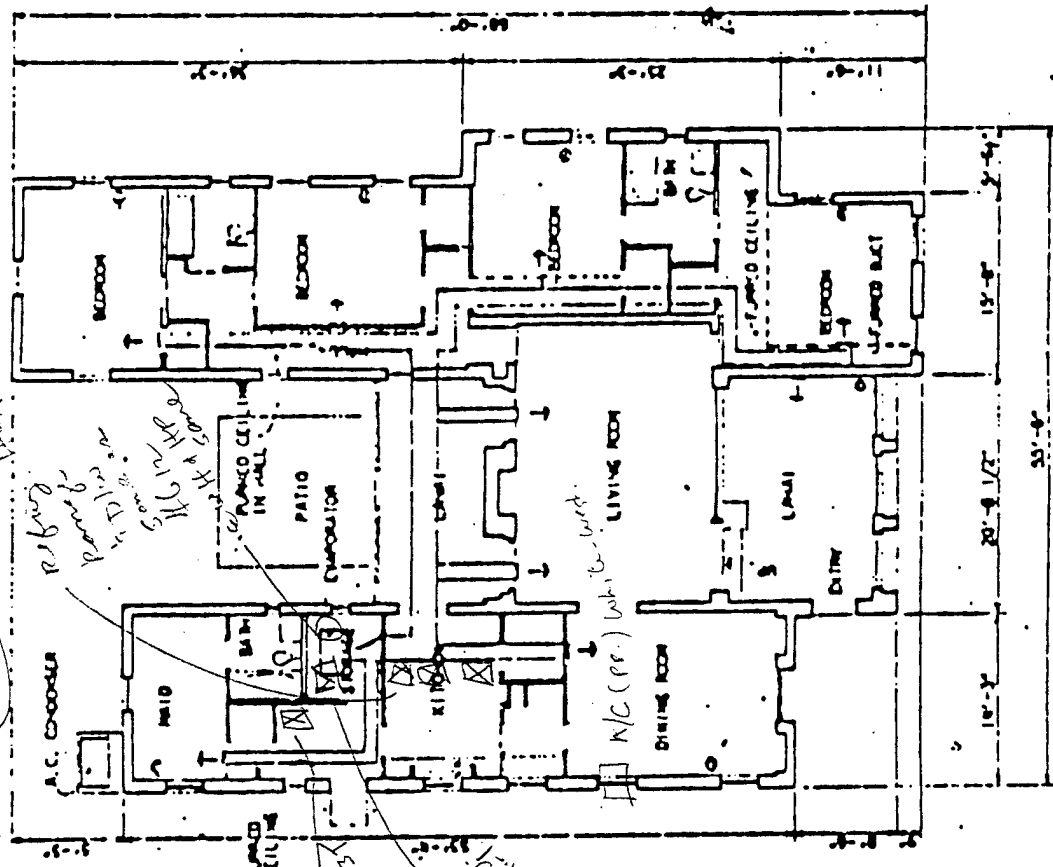
|      |      |      |      |      |
|------|------|------|------|------|
| 601. | 602. | 603. | 604. | 605. |
| 606. | 607. | 608. | 609. | 610. |
| 611. | 612. | 613. | 614. | 615. |
| 616. | 617. | 618. | 619. | 620. |
| 621. | 622. | 623. | 624. | 625. |
| 626. | 627. | 628. | 629. | 630. |

SEE 34 1/2 PLUM SKEET (2) FOR LOCATION

Type 32-III

#606

Whirl  
Dysar P.C. 600000  
Range GE Large Typ  
no hood  
C.C. 8' x 10' Typ.



FLOOR PLAN - 3 BR  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS

|      |      |      |      |      |
|------|------|------|------|------|
| 601. | 602. | 603. | 604. | 605. |
| 606. | 607. | 608. | 609. | 610. |
| 611. | 612. | 613. | 614. | 615. |
| 616. | 617. | 618. | 619. | 620. |
| 621. | 622. | 623. | 624. | 625. |
| 626. | 627. | 628. | 629. | 630. |

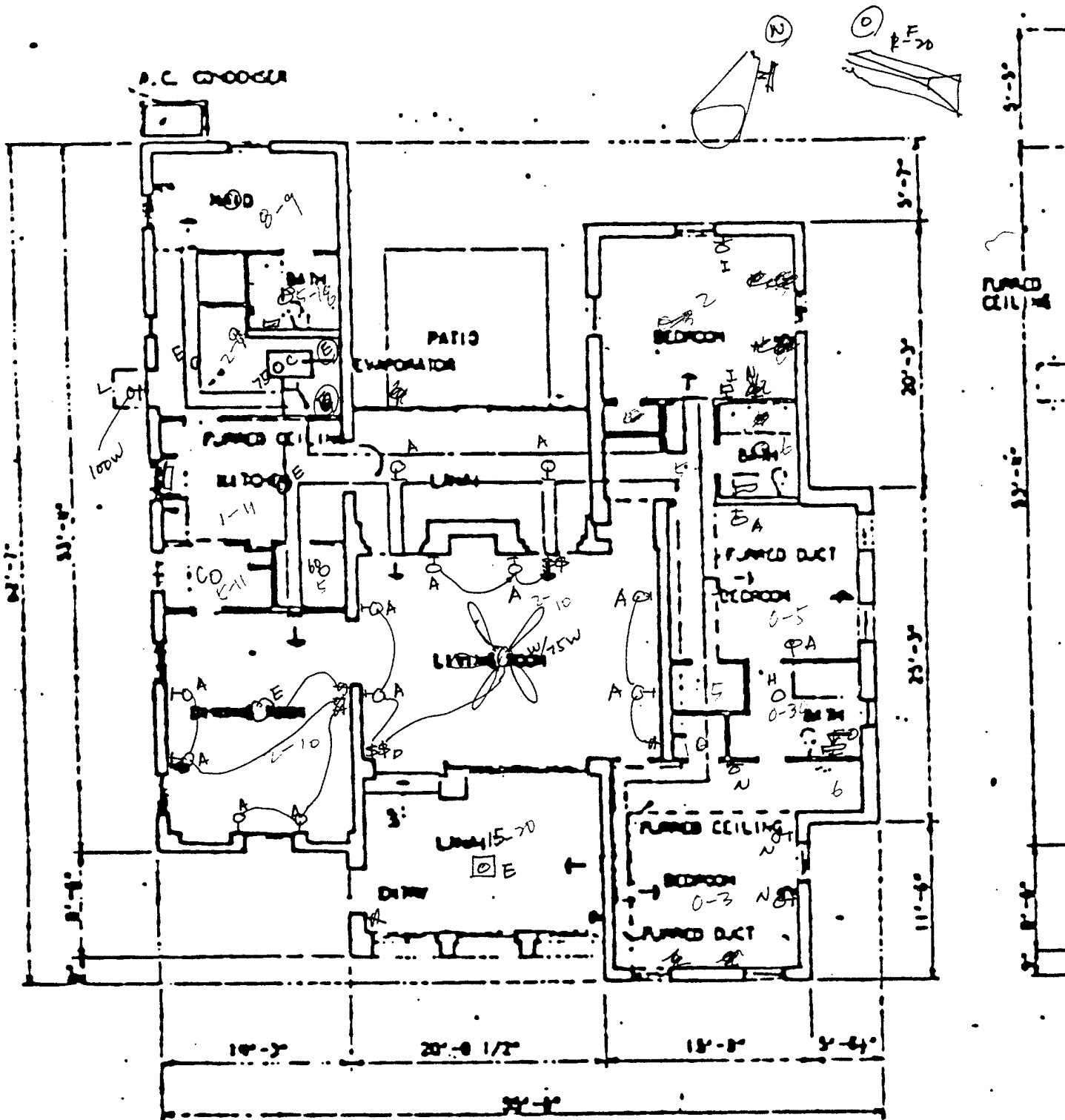
SEE 34 1/2 PLUM SKEET (2) FOR LOCATION

Type 32-IV

REVISIONS

|           |         |          |                        |
|-----------|---------|----------|------------------------|
| REVISIONS | DATE    | BY       | FOR                    |
| 1         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 2         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 3         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 4         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 5         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 6         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 7         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 8         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 9         | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |
| 10        | 10/1/50 | J. H. H. | FOR ADDITIONAL DETAILS |

U. S. ARMY ENGINEERING DIVISION, PACIFIC OCEAN DISTRICT



FLOOR PLAN - 3 BR  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS

|      |      |      |      |     |
|------|------|------|------|-----|
| 601. | 603. | 605. | 607. | 609 |
| 611. | 613. | 615. | 617. | 619 |
| 621. | 623. | 625. | 614. | 616 |
| 628. | 632. | 634. | 626. | 627 |
| 638. | 639. | 641. | 635. | 637 |
| 648  |      |      |      |     |

SEE SITE PLAN SHEET (14) FOR LOCATION

Type 32-III

611

BUILDING NO

608, 609,  
610, 612.

Date: 1/10/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 627

Building Type: 32-111

Apartment: \_\_\_\_\_

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: from 3pm

No. of Occupants: 2

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 2

Average No. of Times Dishwasher Used/Day: every other Day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

same as 607

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Yes No

Tinted

Reflective Coating /

sane as 607

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

           Central Plant                                 One System per Building

       Several Small Systems per Building

\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
\_\_\_\_\_ °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

---

---

---

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated?

1) Condition of circular \_\_\_\_\_

2) Circulator capacity \_\_\_\_\_

3) Is aquastat provided?

4) Aquastat temperature setting \_\_\_\_\_

5) Mfg/Model \_\_\_\_\_

6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location \_\_\_\_\_

b. Areas Served

c.. Manufacturer and Model \_\_\_\_\_ /

d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

e. Type Heaters & Quantities:

1) Storage \_\_\_\_\_

2) Instantaneous \_\_\_\_\_

3) Semi-Instantaneous \_\_\_\_\_

f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

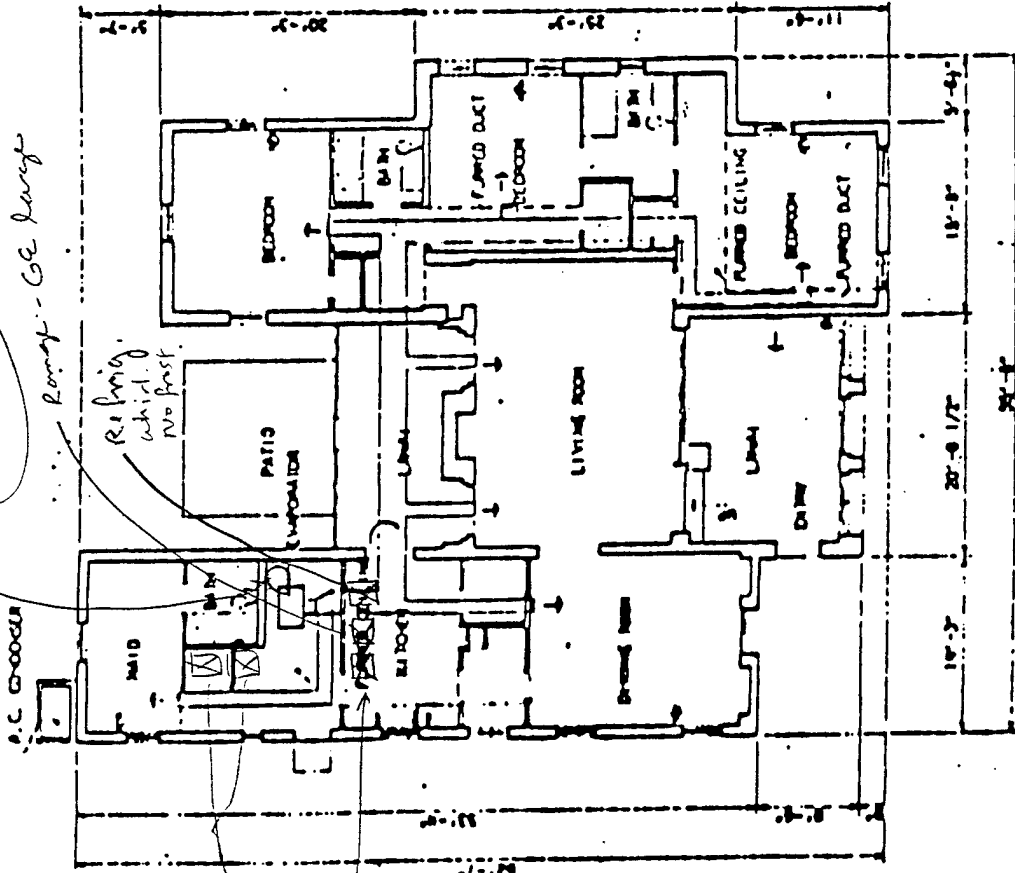
### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit sk  | 12/10s |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

SWH with  
Type, GC gals

#627

Range - GE large



FLOOR PLAN - 3 BR  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS

601, 603, 605, 607, 609  
611, 613, 615, 617, 619  
621, 623, 625, 627, 629  
631, 633, 635, 637, 639

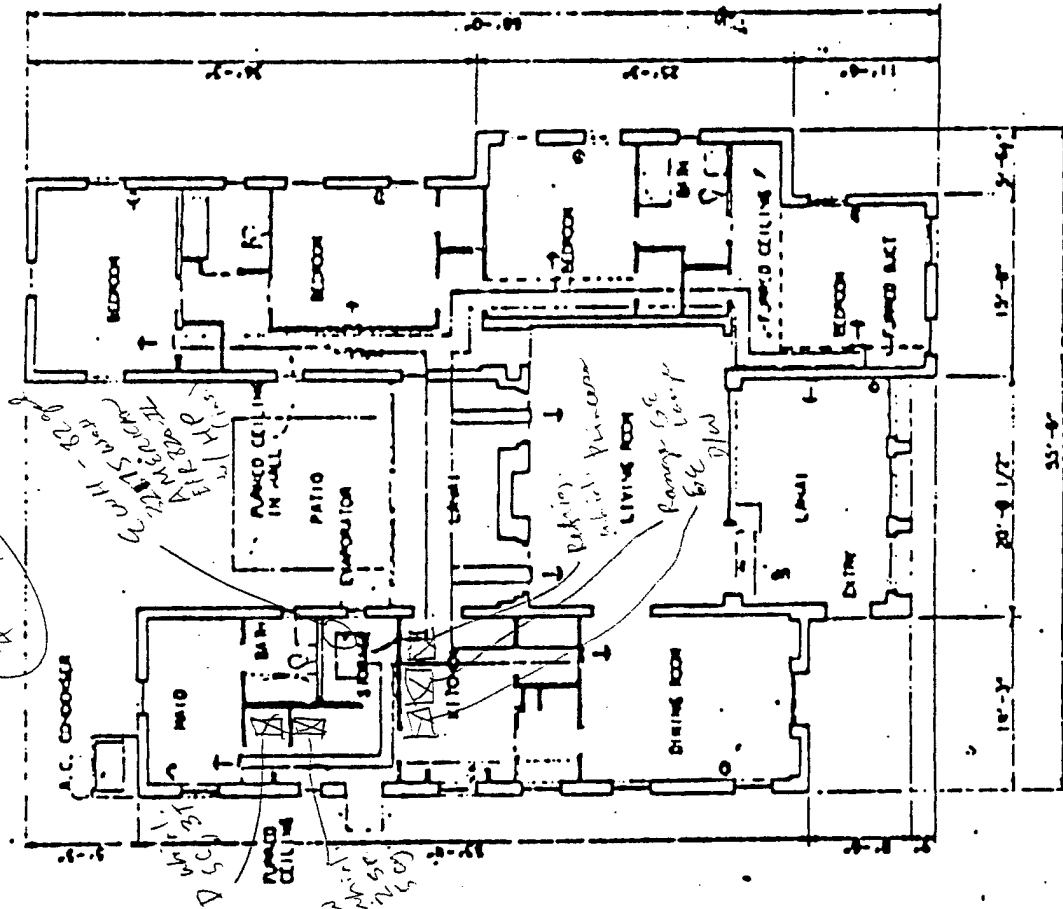
SEE SITE PLAN SHEET 12 FOR LOCATION

Type 32-III

BUILDING NUMBERS

601, 603, 605, 607, 609  
611, 613, 615, 617, 619  
621, 623, 625, 627, 629  
631, 633, 635, 637, 639

Type 32-IV



FLOOR PLAN - 3 BR  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS

601, 603, 605, 607, 609  
611, 613, 615, 617, 619  
621, 623, 625, 627, 629  
631, 633, 635, 637, 639

SEE SITE PLAN SHEET 12 FOR LOCATION

REVISIONS

REVISIONS  
FAMILY HOUSING  
BOSTON BUREAU FOR AIR CONDITIONING PROJECTS  
OFFICE BUILDING 300' x 110' (1938)  
FLOOR PLAN  
TYPE 32-IV  
DATE: 10/1/41  
BY: [Signature]  
U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  
CORPS OF ENGINEERS





Date: 1/10/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 631

Building Type: 32 - 111

Apartment: \_\_\_\_\_

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all day

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 8

Average No. of Times Dishwasher Used/Day: 2 or 3 days

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 6.7

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*Same as 607*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

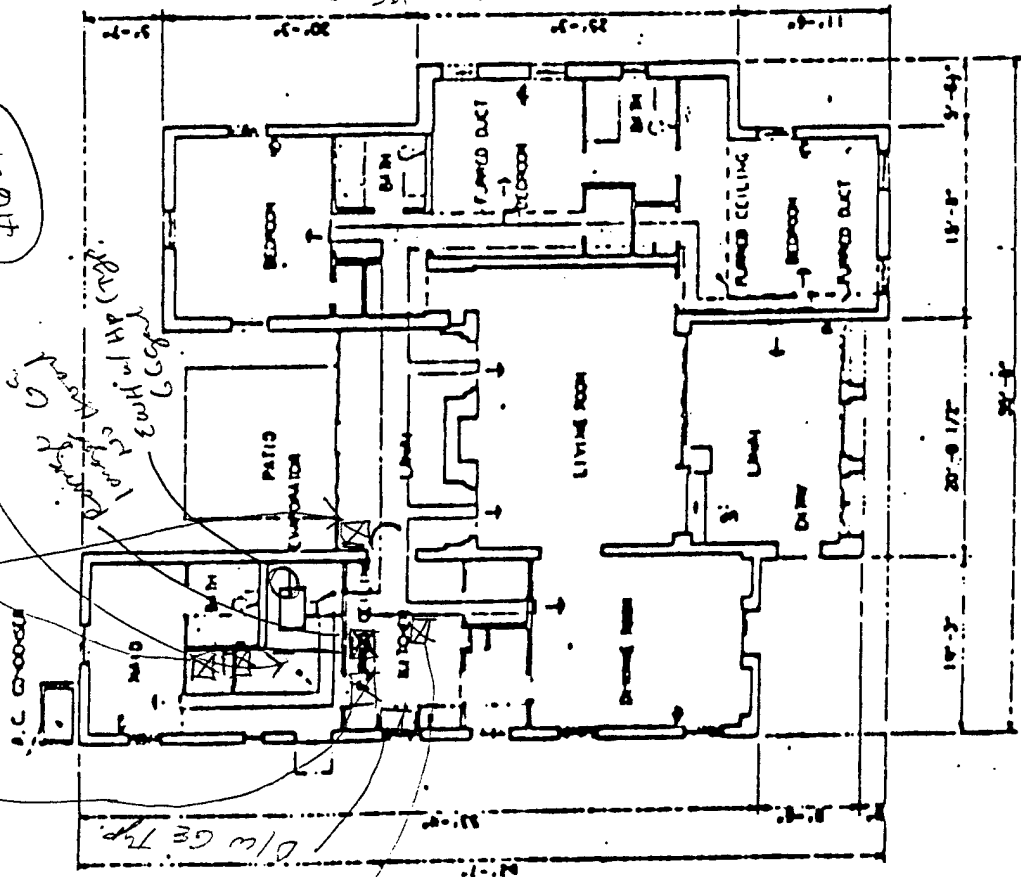
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture                            | Flow   | Water Temp. | Remarks             |
|------------------------------------|--------|-------------|---------------------|
| Kit SK                             | 22/105 | 130°F       |                     |
| Maid's Room Shower <sup>Head</sup> | 12/105 | 128°F       | Shower message head |
|                                    |        |             |                     |
|                                    |        |             |                     |
|                                    |        |             |                     |
|                                    |        |             |                     |
|                                    |        |             |                     |
|                                    |        |             |                     |

Washer whirl 2st, 100 whirl.  
Dry 5 cycles, 3 sp. whirl.  
Dry 100 whirl.

#631



FLOOR PLAN - 3 III  
SCALE 1/8" = 1'-0"

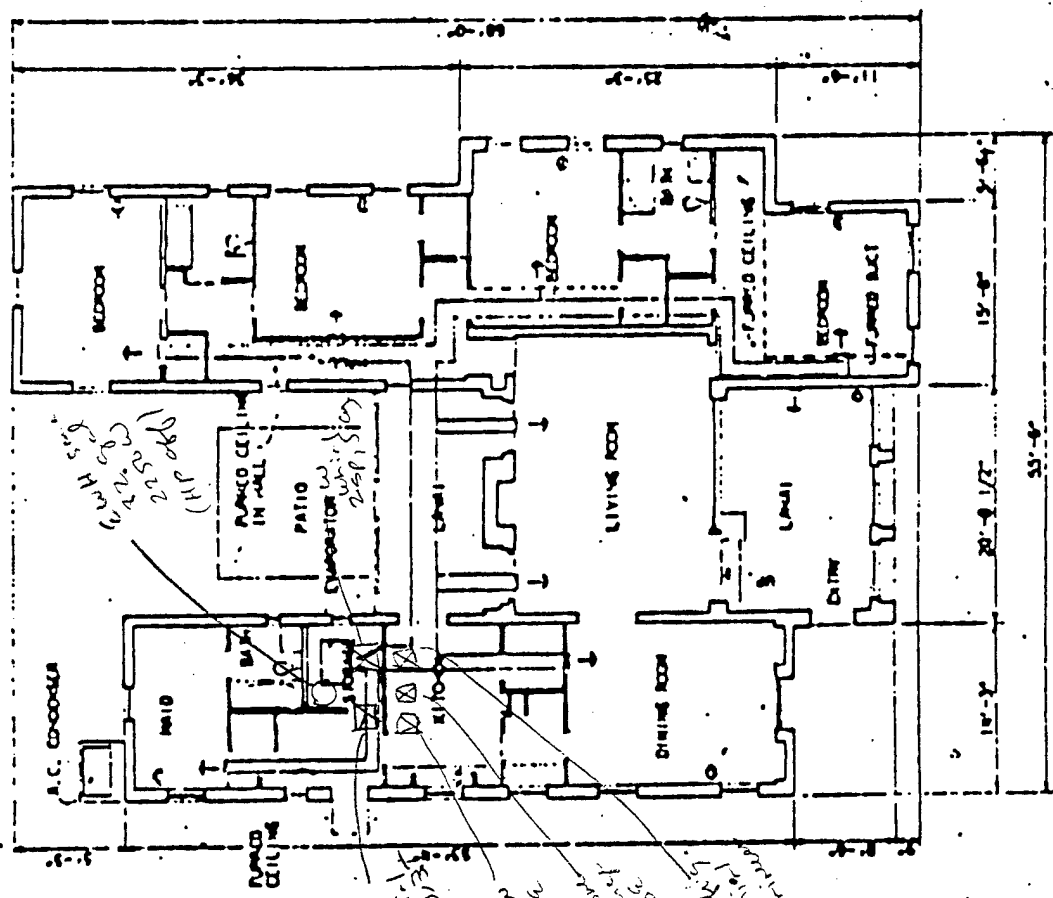
BUILDING NUMBERS

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| 601 | 602 | 603 | 604 | 605 |
| 606 | 607 | 608 | 609 | 610 |
| 611 | 612 | 613 | 614 | 615 |
| 616 | 617 | 618 | 619 | 620 |
| 621 | 622 | 623 | 624 | 625 |
| 626 | 627 | 628 | 629 | 630 |

Type 32-III

SEE 34-12 PLANS SHEET 12 FOR LOCATION

602



FLOOR PLAN - 4 IV  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| 601 | 602 | 603 | 604 | 605 |
| 606 | 607 | 608 | 609 | 610 |
| 611 | 612 | 613 | 614 | 615 |
| 616 | 617 | 618 | 619 | 620 |
| 621 | 622 | 623 | 624 | 625 |
| 626 | 627 | 628 | 629 | 630 |

Type 32-IV

SEE 34-12 PLANS SHEET 12 FOR LOCATION

REVISIONS

|     |           |
|-----|-----------|
| 1   | REVISIONS |
| 2   | REVISIONS |
| 3   | REVISIONS |
| 4   | REVISIONS |
| 5   | REVISIONS |
| 6   | REVISIONS |
| 7   | REVISIONS |
| 8   | REVISIONS |
| 9   | REVISIONS |
| 10  | REVISIONS |
| 11  | REVISIONS |
| 12  | REVISIONS |
| 13  | REVISIONS |
| 14  | REVISIONS |
| 15  | REVISIONS |
| 16  | REVISIONS |
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| 21  | REVISIONS |
| 22  | REVISIONS |
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| 25  | REVISIONS |
| 26  | REVISIONS |
| 27  | REVISIONS |
| 28  | REVISIONS |
| 29  | REVISIONS |
| 30  | REVISIONS |
| 31  | REVISIONS |
| 32  | REVISIONS |
| 33  | REVISIONS |
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| 95  | REVISIONS |
| 96  | REVISIONS |
| 97  | REVISIONS |
| 98  | REVISIONS |
| 99  | REVISIONS |
| 100 | REVISIONS |

U. S. ARMY ENGINEERING DIVISION  
CORPS OF ENGINEERS



UNIT TYPE 32-IV



Date: 11/11/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 602

Building Type: 32 - IV

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 5

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 15

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*conc wall*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*conc. (some masonry)*

*plaster (some)*

*wood*

*asphalt shingles*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

Central Plant One System per Building  
Several Small Systems per Building  
Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 116 °F  
°F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: Visible piping has abv. ground  
Insulation Thickness: ins.

e. Is Hot Water Circulated? No

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Storage
- b. Areas Served Conf. House
- c. Manufacturer and Model Hoyt FES-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.) E
- e. Type Heaters & Quantities:
- 1) Storage ✓
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 1.6 gal.

- g. Heating Capacity 2250 W  
h. Type Controls (Air, Steam, Electric) 2  
i. When Installed & Condition \_\_\_\_\_  
j. Heater Temperature Setting \_\_\_\_\_  
k. Average Water Maintained Temperature \_\_\_\_\_  
l. Temperature Differential (j) - (k) \_\_\_\_\_  
m. Is Hot Water Supply Adequate \_\_\_\_\_  
n. Insulation Thickness \_\_\_\_\_  
o. Insulation Material \_\_\_\_\_  
p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_  
2) Galons HW/Wash \_\_\_\_\_  
3) Booster Heater Mfg/Mdl \_\_\_\_\_  
4) Heating Source \_\_\_\_\_  
5) Capacity \_\_\_\_\_  
6) Electrical Data \_\_\_\_\_

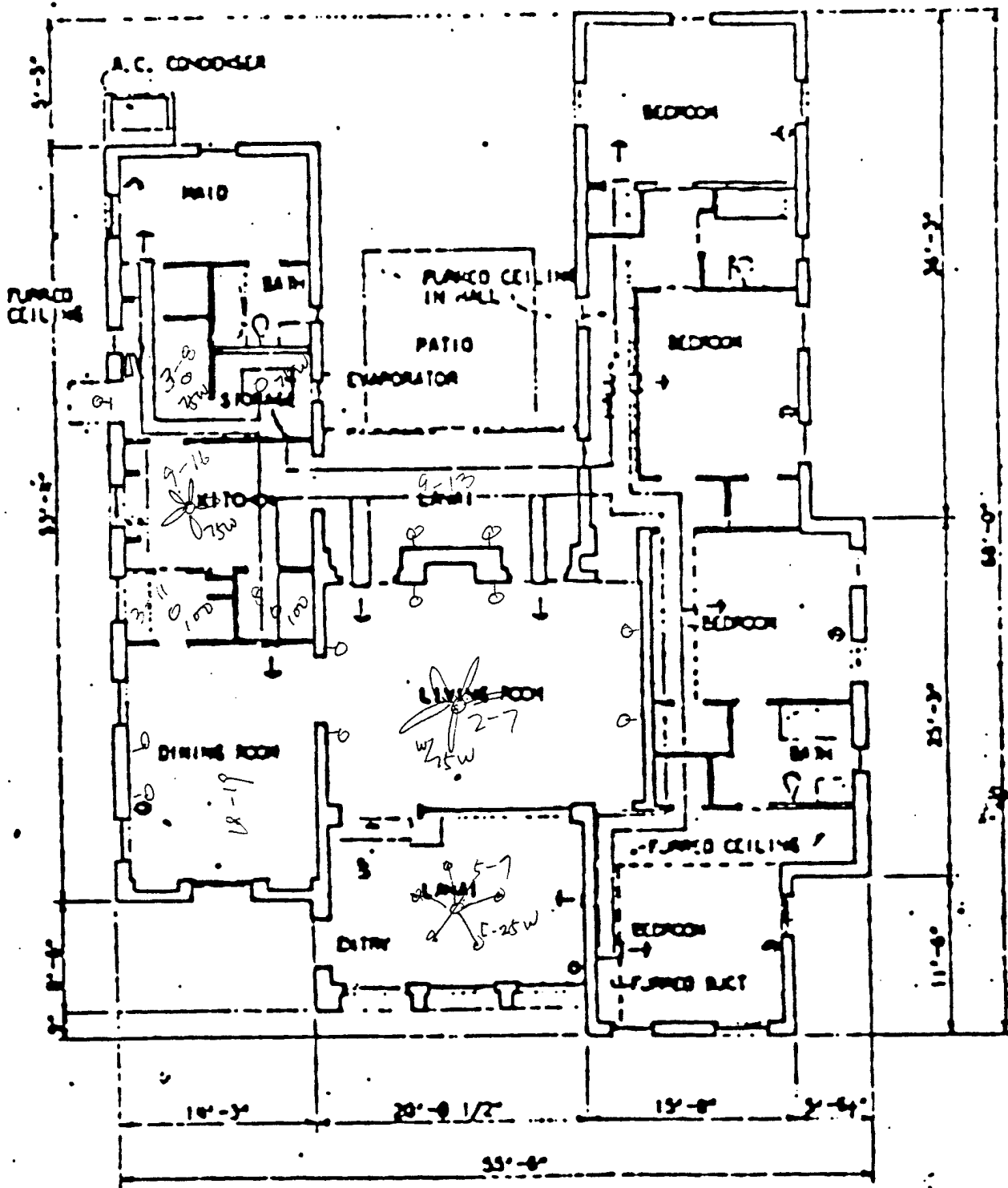
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_  
2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
3) Gallons HW/Wash \_\_\_\_\_  
4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture        | Flow   | Water Temp. | Remarks |
|----------------|--------|-------------|---------|
| Laundry Tub SK | 42/105 | 116         |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |

RECEIVED



FLOOR PLAN - 1st  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS

601, 602, 604, 605, 606  
610, 612, 620, 633

Type 32-IV

REVISIONS

FAMILY HOUSING  
BUDGETARY DATA FOR AIR CONDITIONING PROJECTS

OFFICE BUILDING 300FELD 115201

AREA 1

Date: 1/11/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 604

Building Type: 32-IV

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 5

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 15

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*Same as 602*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



Reflective Coating

same as 602

a. Is System Supported from (check one):

\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture        | Flow   | Water Temp. | Remarks |
|----------------|--------|-------------|---------|
| Laundry Tub SK | 3l/10s | 128 F       |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |





Date: 1/11/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 606

Building Type: 32-IV

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 3

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 602

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture        | Flow   | Water Temp. | Remarks |
|----------------|--------|-------------|---------|
| Laundry Tub Sk | 32/105 | 112 F       |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |
|                |        |             |         |



W.H. of H.P.  
 C.C. 82.1 Yg.  
 D/W Yg.  
 #611  
 W.H. 1.3 Yg.  
 D.W. 1.3 Yg.

607#

10-1-101 101  
101-101-101

| DATE | TIME | LOCATION | REMARKS |
|------|------|----------|---------|
| 10-1 | 001  | 001      | 001     |
| 10-1 | 011  | 011      | 011     |
| 10-1 | 021  | 021      | 021     |
| 10-1 | 031  | 031      | 031     |
| 10-1 | 041  | 041      | 041     |
| 10-1 | 051  | 051      | 051     |
| 10-1 | 061  | 061      | 061     |
| 10-1 | 071  | 071      | 071     |
| 10-1 | 081  | 081      | 081     |
| 10-1 | 091  | 091      | 091     |
| 10-1 | 101  | 101      | 101     |
| 10-1 | 111  | 111      | 111     |
| 10-1 | 121  | 121      | 121     |
| 10-1 | 131  | 131      | 131     |
| 10-1 | 141  | 141      | 141     |
| 10-1 | 151  | 151      | 151     |
| 10-1 | 161  | 161      | 161     |
| 10-1 | 171  | 171      | 171     |
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| 10-1 | 451  | 451      | 451     |
| 10-1 | 461  | 461      | 461     |
| 10-1 | 471  | 471      | 471     |
| 10-1 | 481  | 481      | 481     |
| 10-1 | 491  | 491      | 491     |
| 10-1 | 501  | 501      | 501     |
| 10-1 | 511  | 511      | 511     |
| 10-1 | 521  | 521      | 521     |
| 10-1 | 531  | 531      | 531     |
| 10-1 | 541  | 541      | 541     |
| 10-1 | 551  | 551      | 551     |
| 10-1 | 561  | 561      | 561     |
| 10-1 | 571  | 571      | 571     |
| 10-1 | 581  | 581      | 581     |
| 10-1 | 591  | 591      | 591     |
| 10-1 | 601  | 601      | 601     |
| 10-1 | 611  | 611      | 611     |
| 10-1 | 621  | 621      | 621     |
| 10-1 | 631  | 631      | 631     |
| 10-1 | 641  | 641      | 641     |
| 10-1 | 651  | 651      | 651     |
| 10-1 | 661  | 661      | 661     |
| 10-1 | 671  | 671      | 671     |
| 10-1 | 681  | 681      | 681     |
| 10-1 | 691  | 691      | 691     |
| 10-1 | 701  | 701      | 701     |
| 10-1 | 711  | 711      | 711     |
| 10-1 | 721  | 721      | 721     |
| 10-1 | 731  | 731      | 731     |
| 10-1 | 741  | 741      | 741     |
| 10-1 | 751  | 751      | 751     |
| 10-1 | 761  | 761      | 761     |
| 10-1 | 771  | 771      | 771     |
| 10-1 | 781  | 781      | 781     |
| 10-1 | 791  | 791      | 791     |
| 10-1 | 801  | 801      | 801     |
| 10-1 | 811  | 811      | 811     |
| 10-1 | 821  | 821      | 821     |
| 10-1 | 831  | 831      | 831     |
| 10-1 | 841  | 841      | 841     |
| 10-1 | 851  | 851      | 851     |
| 10-1 | 861  | 861      | 861     |
| 10-1 | 871  | 871      | 871     |
| 10-1 | 881  | 881      | 881     |
| 10-1 | 891  | 891      | 891     |
| 10-1 | 901  | 901      | 901     |
| 10-1 | 911  | 911      | 911     |

Type. 32-III.

THE NEW YORK PUBLIC LIBRARY  
ASTOR LENOX TILDEN FOUNDATION  
1775

FLOOR PLAN - 1st  
1001 - 1011

|      |      |      |      |
|------|------|------|------|
| 608. | 609. | 610. | 611. |
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| 606. | 607. | 608. | 609. |
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| 603. | 604. | 605. | 606. |
| 602. | 603. | 604. | 605. |
| 601. | 602. | 603. | 604. |
| 600. | 601. | 602. | 603. |
| 599. | 600. | 601. | 602. |
| 598. | 599. | 600. | 601. |
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| 588. | 589. | 590. | 591. |
| 587. | 588. | 589. | 590. |
| 586. | 587. | 588. | 589. |
| 585. | 586. | 587. | 588. |
| 584. | 585. | 586. | 587. |
| 583. | 584. | 585. | 586. |
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Type 32-IV.

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REVISIONS

PROPERTY POLICIES

INVESTMENT BANK FOR THE COOPERATION

OFFICIALS AND THE SOCIETY (1930)

PLANNING

MEMORANDUM

U. S. ARMY ENGINEERING DIVISION, WASHINGTON

REPORT OF THE



Date: 1/11/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 610

Building Type: 32-1V

Apartment: \_\_\_\_\_

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: from 3 pm

No. of Occupants: 6

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 9

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 2.0 ARCHITECTURAL

same as 602

### Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Conc. Wall \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Conc. (some rooms) \_\_\_\_\_

plaster (some) \_\_\_\_\_

wood \_\_\_\_\_

asphalt shingles \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

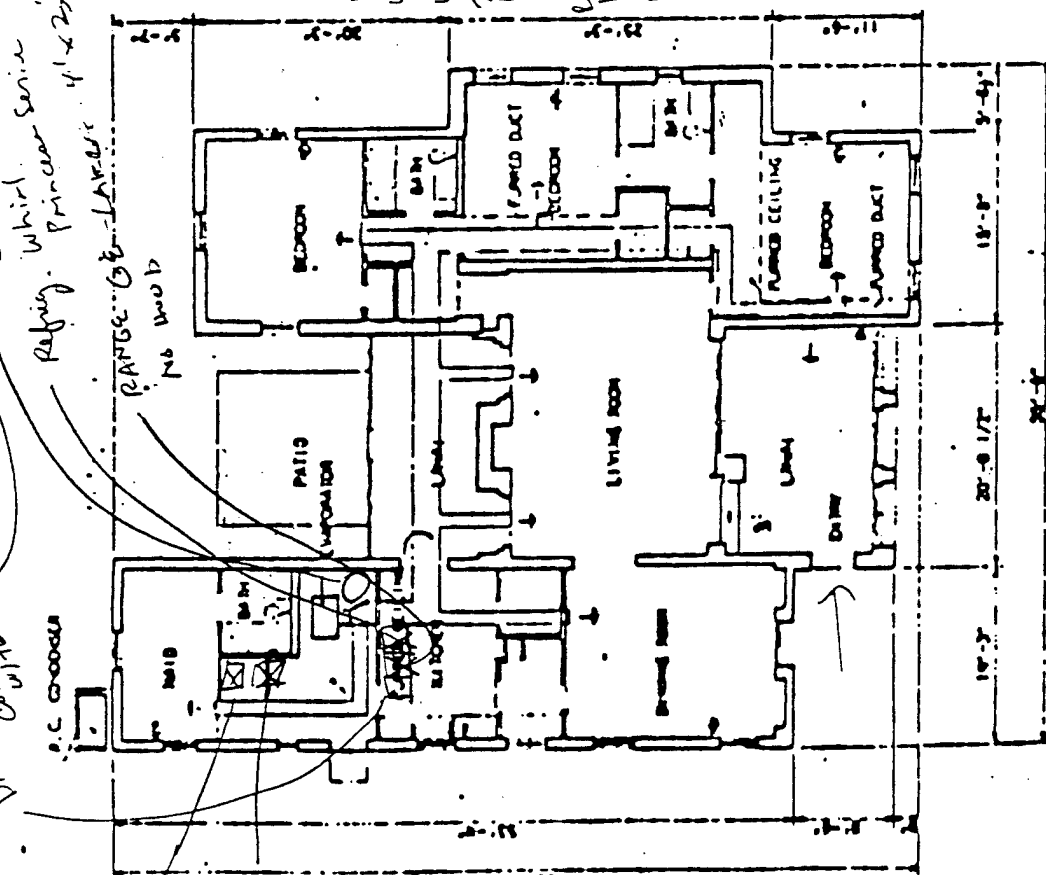
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture            | Flow   | Water Temp. | Remarks |
|--------------------|--------|-------------|---------|
| Laundry Tub sk     | 32/105 | 118 F       |         |
| Naid's Room Shower | 12/105 | 112 F       |         |
|                    |        |             |         |
|                    |        |             |         |
|                    |        |             |         |
|                    |        |             |         |
|                    |        |             |         |
|                    |        |             |         |

D/W) G.E. JEBB. SIND  
C/O JEBB (607 R)  
SOUTH CAROLINA (P)  
Refry. Whirl Series  
Princess 4' x 2'  
P.C. 6-0000



8-1-81  
11-1-81

2-10-21 1928

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Type. 32-III.

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FLOOR PLAN - 1 BR  
SCALE 1/8" = 1'-0"

4-1-21 1938

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**1**

**WILLIAM**

DATE OF BIRTH .

**EXTRACTS FROM THE REPORT OF THE**

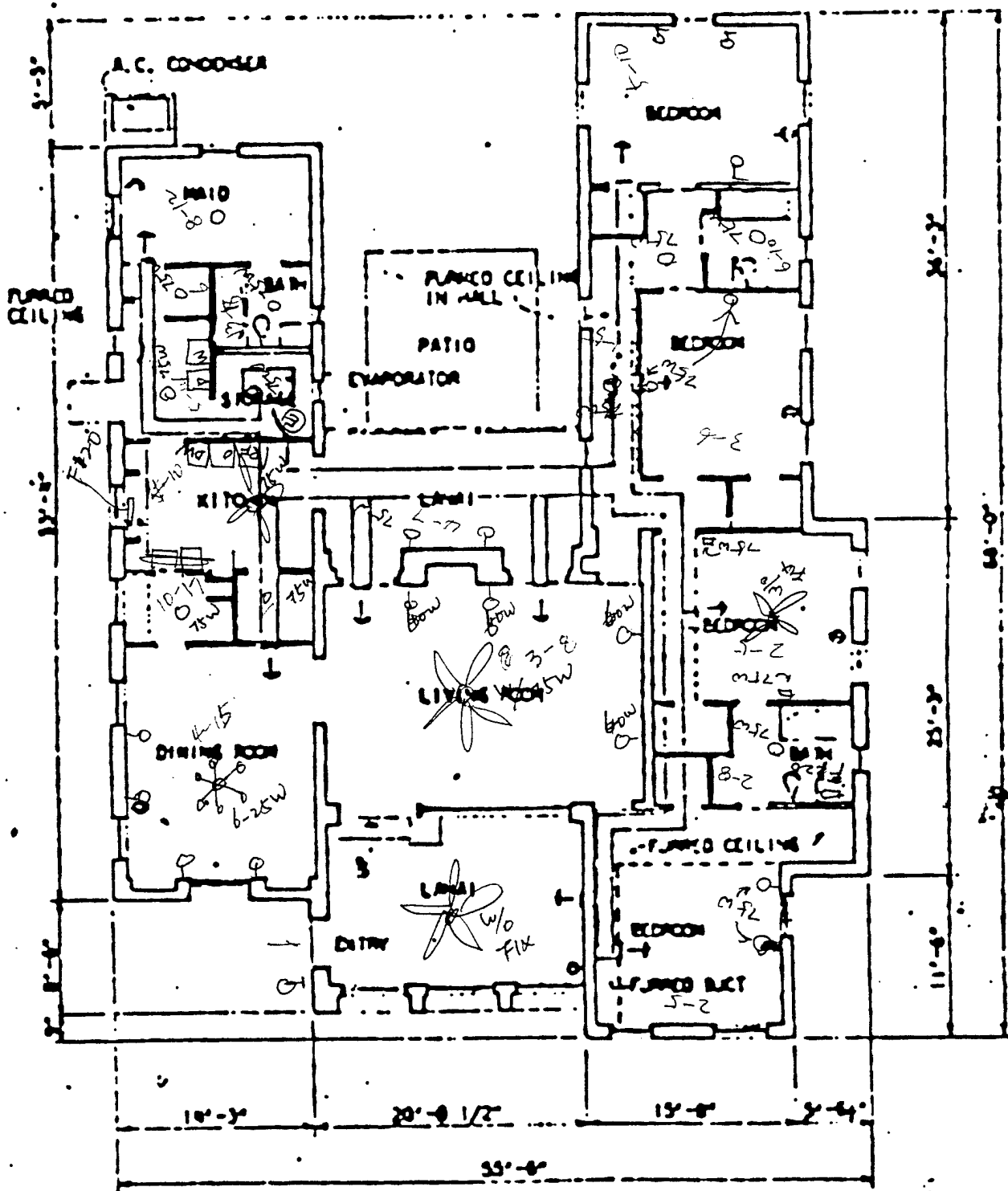
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500 5TH AVENUE  
NEW YORK 17, N.Y.

1957-1958

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THE UNIVERSITY OF CHICAGO



FLOOR PLAN - 1/2" = 1'-0"

BUILDING NUMBERS

601, 602, 603, 604, 605  
610, 612, 613, 614

Type 32-IV

REVISIONS

FAMILY HOUSING  
BUDGETARY DATA FOR AIR CONDITIONING PROJECTS

OFFICE BUILDING 200' x 115' x 115'

AREA 7



UNIT TYPE 57-I

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 802

Building Type: 57-I

Apartment: B

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 2

Average No. of Showers/Day: 3 or 4

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: 2 or 3 times week

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# 2.0 ARCHITECTURAL

## Construction

*Crawl  
space  
under house  
available  
~3'*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Wood Wall*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Wood Roof*

*Asphalt Shingles*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted /  
Reflective Coating /

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
  /   Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 160 °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: good Armalex  
Insulation Thickness: 1"

e. Is Hot Water Circulated? No

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location laundry Room  
b. Areas Served All  
c. Manufacturer and Model Hout Model FES-1  
d. Energy (Oil, Gas, Electric, Coal, Etc.) E  
e. Type Heaters & Quantities:  
1) Storage   /    
2) Instantaneous         
3) Semi-Instantaneous         
f. Heater Size and Storage Capacity 66 gal

- g. Heating Capacity 2250W
- h. Type Controls (Air, Steam, Electric) 2
- i. When Installed & Condition Good
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

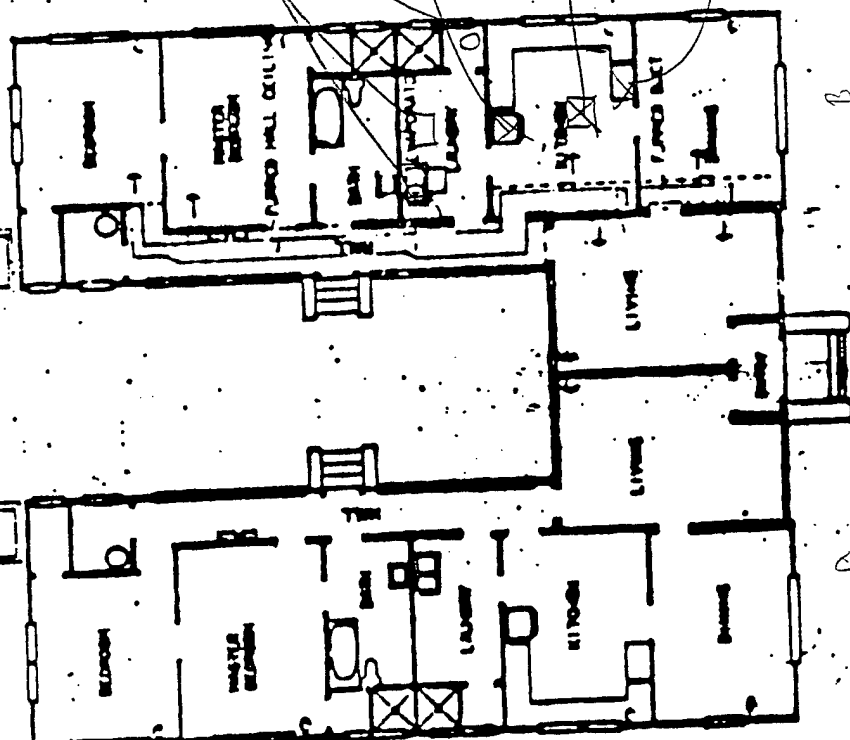
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture     | Flow   | Water Temp. | Remarks |
|-------------|--------|-------------|---------|
| laundry Tub | 42/105 | 160°F       |         |
| Shower      | 22/65  | 142°F       |         |
|             |        |             |         |
|             |        |             |         |
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A.C. CONDENSER

A.C. CONDENSER



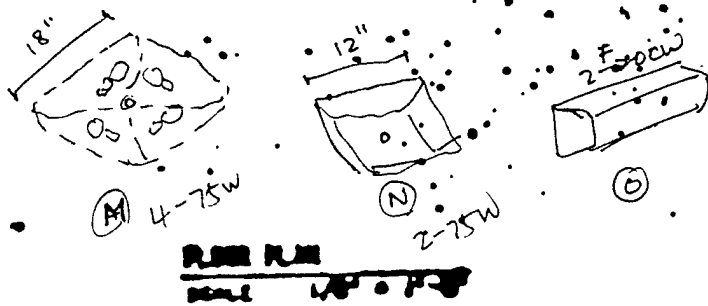
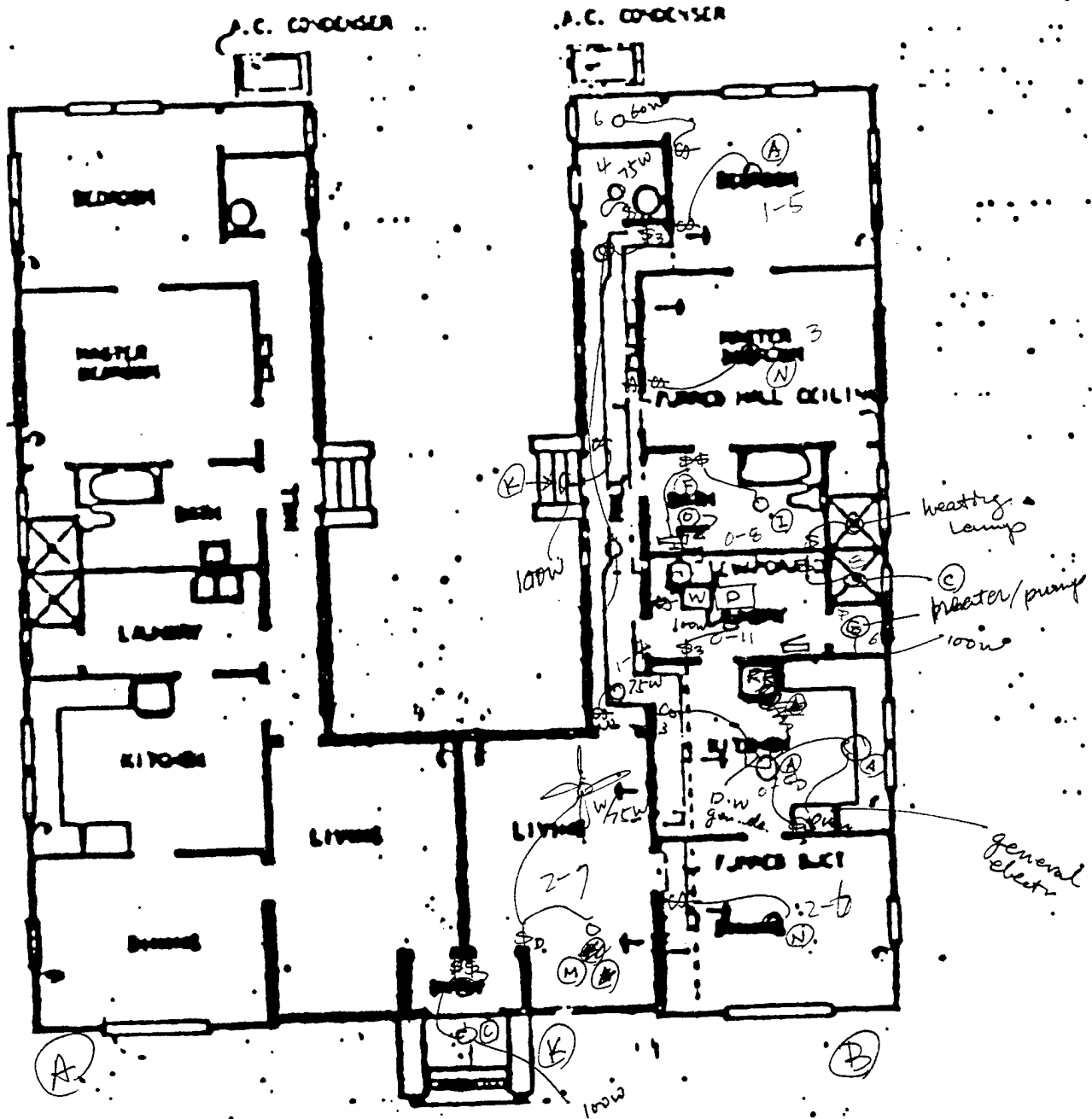
Type  
57-1 B  
802 B

BUILDING NUMBERS

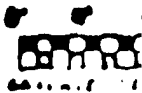
- AREA D 802  
SEE SITE PLAN SHEET (E) FOR LOCATION
- AREA I 736  
SEE SITE PLAN SHEET (H) FOR LOCATION
- AREA J 802, 818, 835  
SEE SITE PLAN SHEET (I) FOR LOCATION

| DIVISION                                       |                   |
|--|-------------------|
| FAMILY HOUSING                                 |                   |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS   |                   |
| OFFICERS' QUARTERS SCHEDULE AREAS B, I, and J  |                   |
| FLOOR PLAN 2 DE (BUILT)                        |                   |
| SCHEDULED BUDGETS                              | DATE, MONTH, YEAR |
| U. S. ARMY ENGINEER DIVISION, PROJECTS SECTION |                   |
| COMPS OF DRAWINGS                              |                   |
| NO. SHEET, NAME(S)                             |                   |

FLOOR PLAN  
SCALE 1/8" = 1'-0"



802.B



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 814

Building Type: \_\_\_\_\_

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 2

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 3

Average No. of Times Dishwasher Used/Day: Not used

Remarks: \_\_\_\_\_

\_\_\_\_\_  
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2.0 ARCHITECTURAL

same as 802

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted /  
Reflective Coating /

3.0 HOT WATER SYSTEM

*same as 802*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

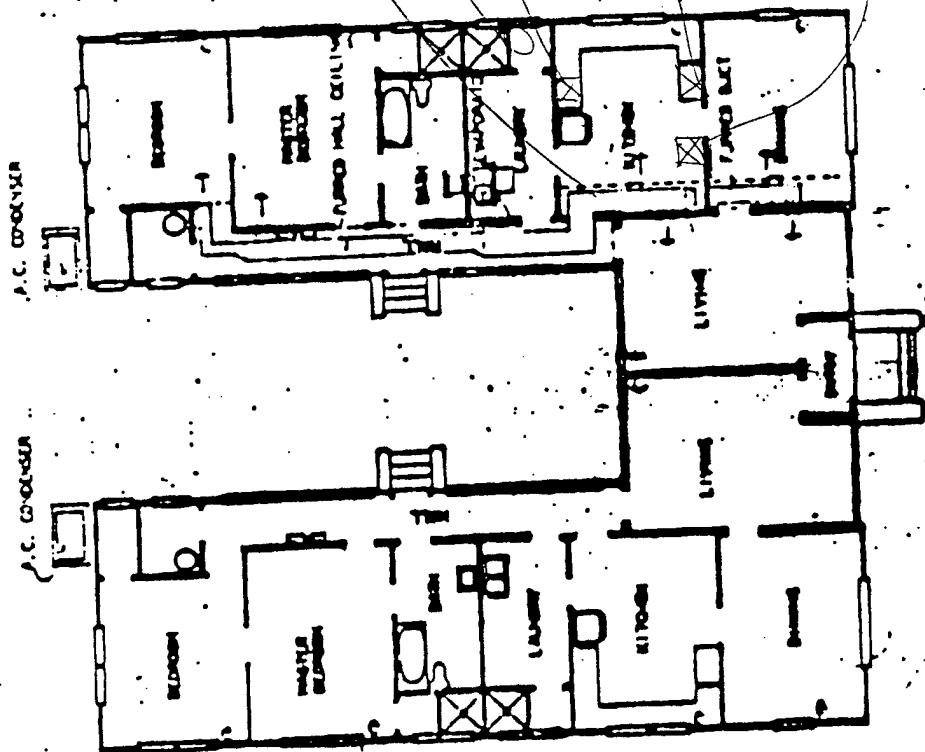
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture         | Flow     | Water Temp. | Remarks |
|-----------------|----------|-------------|---------|
| Laundry St      | 3.5L/10s | 120F        |         |
| Bathroom Shower | 3L/10s   | 118         |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |

814A



Handwritten notes on the plan:  
 Dining room  
 Kitchen  
 Bedroom  
 Bath  
 Laundry  
 Living room  
 A.C. CONDENSER  
 Type 57-1

Handwritten note: "The house is insul."

**BUILDING NUMBERS**

- AREA B 409  
SEE SITE PLAN SHEET 67 FOR LOCATION
- AREA I 736  
SEE SITE PLAN SHEET 67 FOR LOCATION
- AREA J 802, 819, 833  
SEE SITE PLAN SHEET 67 FOR LOCATION

**FLOOR PLAN**  
SCALE 1/8" = 1'-0"

| REVISIONS   |                   |
|---|-------------------|
| FAMILY HOUSING                                    |                   |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS      |                   |
| OFFICERS' QUARTERS SCOTTS AFB, MISSISSIPPI        | AREA I            |
| FLOOR PLAN 2 OF 10 (P. 11)                        | TYPE 1            |
| SCOTTS AFB, MISSISSIPPI                           | AREA J            |
| U. S. ARMY ENGINEERING DIVISION, PROJECTING ROOMS | COMP. OF DRAWINGS |
| NO. 100000, 100000                                |                   |





Date: 1/11/90  
Prepared By: LK

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 835

Building Type: 57-I

Apartment: B

No. Bedrooms: 2

Area: J

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: from 6 pm

No. of Occupants: 2

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 1/2 (every other day)

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as 802

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Wood wall

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area \_\_\_\_\_

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Wood Roof

Asphalt Shingles

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area \_\_\_\_\_

Window Yes No  
Tinted ✓  
Reflective Coating ✓

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: No  
Insulation Thickness:       

e. Is Hot Water Circulated? No

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Closest in Laundry Room
- b. Areas Served all
- c. Manufacturer and Model Hoyt
- d. Energy (Oil, Gas, Electric, Coal, Etc.) E 2250 Watt
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 66 gallon



- g. Heating Capacity 2250 Watt
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate Yes
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

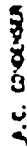
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture            | Flow            | Water Temp.  | Remarks |
|--------------------|-----------------|--------------|---------|
| <u>Laundry Tub</u> | <u>2.5l/10s</u> | <u>110°F</u> |         |
|                    |                 |              |         |
|                    |                 |              |         |
|                    |                 |              |         |
|                    |                 |              |         |
|                    |                 |              |         |
|                    |                 |              |         |
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D. White Westinghouse.

10/1/1914

Type

57-1

835B

100

Postpaid

Disch. 30  
Plat 30  
Sch. 30

Wing 5165  
First Year

PLANNED PLANNING

**WILLIAM W. WATKINS**

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NO. 101-1011 (M) FOR LOCATION

WCA 1 736

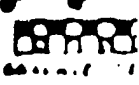
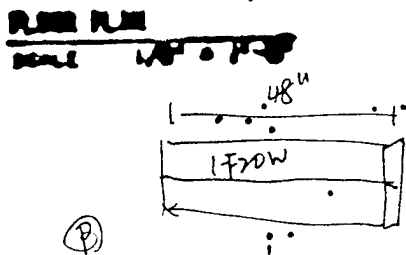
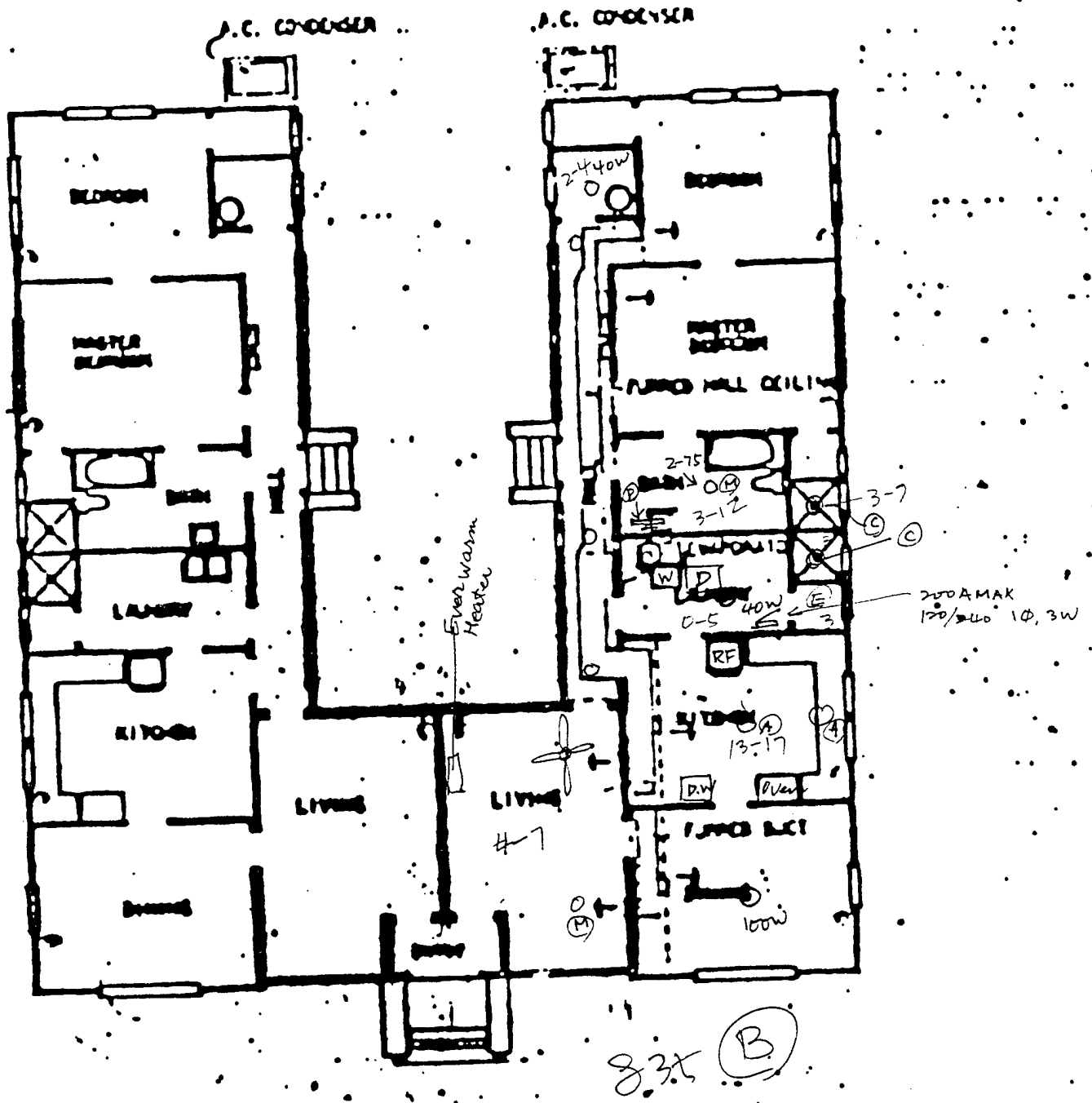
UNIT WILL PLAY OFF @ YOUR LOCATION

1002. 010. 033

10114201 006151375 MW 3115 3X  
MC 3112 PL 44 344151375 1001104

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UNIT TYPE 57-II

Date: 11/15/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3401 A

Building Type: 57-II

Apartment: \_\_\_\_\_

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 2

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
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2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Conc. Wall*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Conc. Roof*

*BUR*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
110 °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: Yes  
Insulation Thickness: 1 1/2"

e. Is Hot Water Circulated? No

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Outside Storage
- b. Areas Served Entire Unit
- c. Manufacturer and Model Hwy FES-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.) E
- e. Type Heaters & Quantities: ✓
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 16 gal

- g. Heating Capacity 2250W  
h. Type Controls (Air, Steam, Electric) E  
i. When Installed & Condition \_\_\_\_\_  
j. Heater Temperature Setting \_\_\_\_\_  
k. Average Water Maintained Temperature \_\_\_\_\_  
l. Temperature Differential (j) - (k) \_\_\_\_\_  
m. Is Hot Water Supply Adequate \_\_\_\_\_  
n. Insulation Thickness \_\_\_\_\_  
o. Insulation Material \_\_\_\_\_  
p. Timeclock and Hrs Set None

### 3.3 HW USING APPLIANCES

a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_  
2) Galons HW/Wash \_\_\_\_\_  
3) Booster Heater Mfg/Mdl \_\_\_\_\_  
4) Heating Source \_\_\_\_\_  
5) Capacity \_\_\_\_\_  
6) Electrical Data \_\_\_\_\_

b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_  
2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
3) Gallons HW/Wash \_\_\_\_\_  
4) Electrical Data \_\_\_\_\_

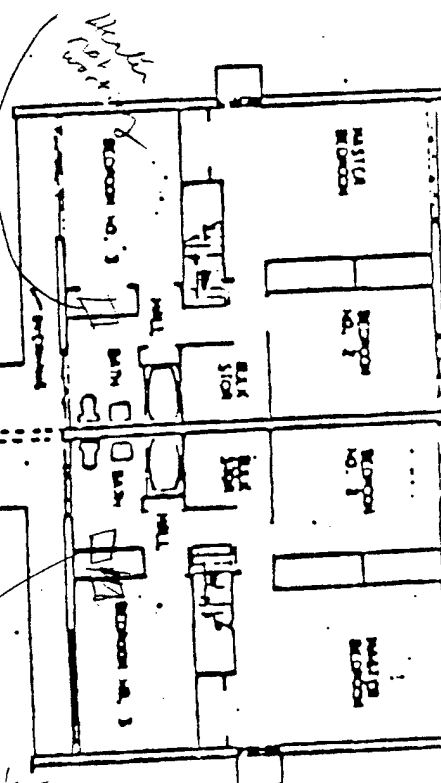
### 3.4 HOT WATER FIXTURES

| Fixture       | Flow                 | Water Temp. | Remarks     |
|---------------|----------------------|-------------|-------------|
| KIT. SK       | 2 $\frac{1}{2}$ /10s | 110F        |             |
| Bathroom Shwr | 4 $\frac{1}{2}$ /10s | 108F        | Normal Head |
|               |                      |             |             |
|               |                      |             |             |
|               |                      |             |             |
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|               |                      |             |             |
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3401A

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



3401B

Water not working

Requing. Gibson front door

plus white-washing house

Family Tappan w/ Nature fan

camer (door)

Washbasin wheel of c.f. 50g

Decorative

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Type S7-II

| UNIT  | REMARKS     |
|-------|-------------|
| 3401A | Family room |
| 3401B | Family room |
| 3401C | Family room |
| 3401D | Family room |
| 3401E | Family room |
| 3401F | Family room |
| 3401G | Family room |
| 3401H | Family room |
| 3401I | Family room |
| 3401J | Family room |
| 3401K | Family room |
| 3401L | Family room |
| 3401M | Family room |
| 3401N | Family room |
| 3401O | Family room |
| 3401P | Family room |
| 3401Q | Family room |
| 3401R | Family room |
| 3401S | Family room |
| 3401T | Family room |
| 3401U | Family room |
| 3401V | Family room |
| 3401W | Family room |
| 3401X | Family room |
| 3401Y | Family room |
| 3401Z | Family room |

| UNIT  | REMARKS     |
|-------|-------------|
| 3401A | Family room |
| 3401B | Family room |
| 3401C | Family room |
| 3401D | Family room |
| 3401E | Family room |
| 3401F | Family room |
| 3401G | Family room |
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| 3401O | Family room |
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| 3401Q | Family room |
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| 3401T | Family room |
| 3401U | Family room |
| 3401V | Family room |
| 3401W | Family room |
| 3401X | Family room |
| 3401Y | Family room |
| 3401Z | Family room |



Date: 1/15/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3401

Building Type: 57-II

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
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Same as 34-1A

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

CMU

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Conc.

BUR ?

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:            °F  
           °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circulator \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
  - 1) Storage \_\_\_\_\_
  - 2) Instantaneous \_\_\_\_\_
  - 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture        | Flow   | Water Temp. | Remarks                                  |
|----------------|--------|-------------|--|
| KIT. SK.       | 22/10s | 166F        |  |
| Bathroom Show. | 12/10s | 100F        | Teledyne water<br>Pick, Super Saver head |
|                |        |             |  |
|                |        |             |  |
|                |        |             |  |
|                |        |             |  |
|                |        |             |  |
|                |        |             |  |







Date: 1/15/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3402

Building Type: 57-II

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*Same as 34-1 A*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Yes No

Tinted

## Reflective Coating

same as 3401.A

same as 3401.A

- a. Is System Supported from (check one):

           Central Plant                                 One System per Building

Several Small Systems per Building

           Individual EWH/Unit

- b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F

- c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

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- d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

- e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
- 1) Storage \_\_\_\_\_
- 2) Instantaneous \_\_\_\_\_
- 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_  
h. Type Controls (Air, Steam, Electric) \_\_\_\_\_  
i. When Installed & Condition \_\_\_\_\_  
j. Heater Temperature Setting \_\_\_\_\_  
k. Average Water Maintained Temperature \_\_\_\_\_  
l. Temperature Differential (j) - (k) \_\_\_\_\_  
m. Is Hot Water Supply Adequate \_\_\_\_\_  
n. Insulation Thickness \_\_\_\_\_  
o. Insulation Material \_\_\_\_\_  
p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

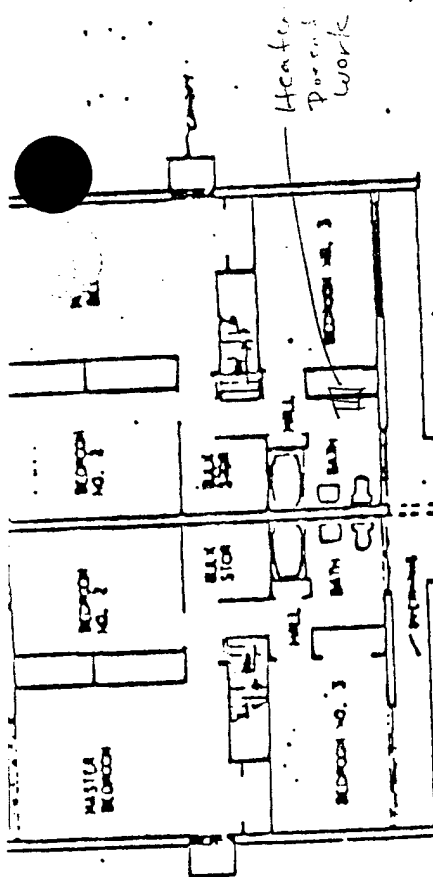
- 1) Mfg/Mdl \_\_\_\_\_  
2) Galons HW/Wash \_\_\_\_\_  
3) Booster Heater Mfg/Mdl \_\_\_\_\_  
4) Heating Source \_\_\_\_\_  
5) Capacity \_\_\_\_\_  
6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

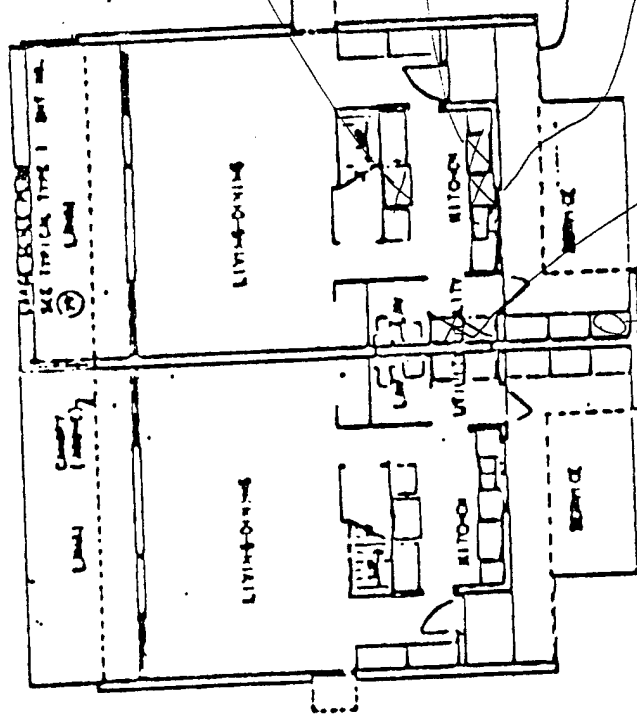
- 1) Mfg/Mdl \_\_\_\_\_  
2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
3) Gallons HW/Wash \_\_\_\_\_  
4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture        | Flow    | Water Temp. | Remarks              |
|----------------|---------|-------------|----------------------|
| Kit. SK        | 2 1/10s | 126F        | Faucet head added on |
| Bathtub Shower | 1 1/10s | 110F        |                      |
|                |         |             |                      |
|                |         |             |                      |
|                |         |             |                      |
|                |         |             |                      |
|                |         |             |                      |
|                |         |             |                      |



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



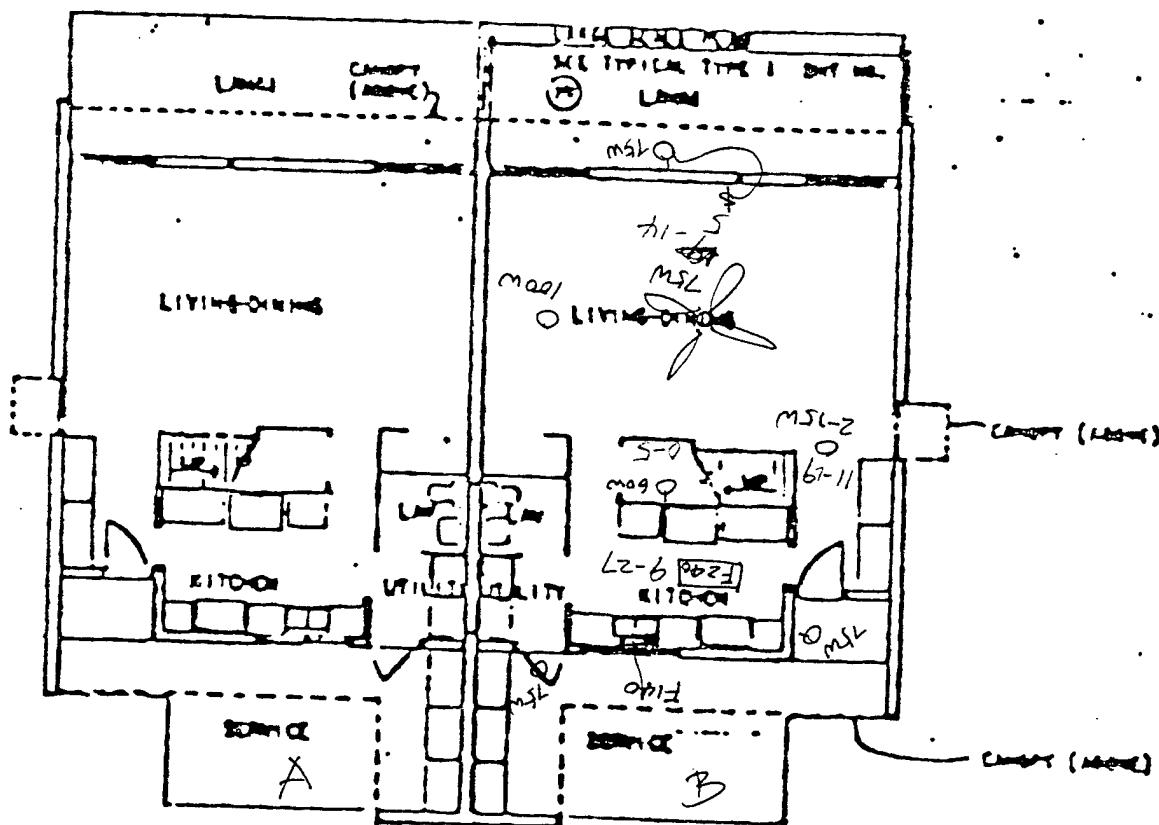
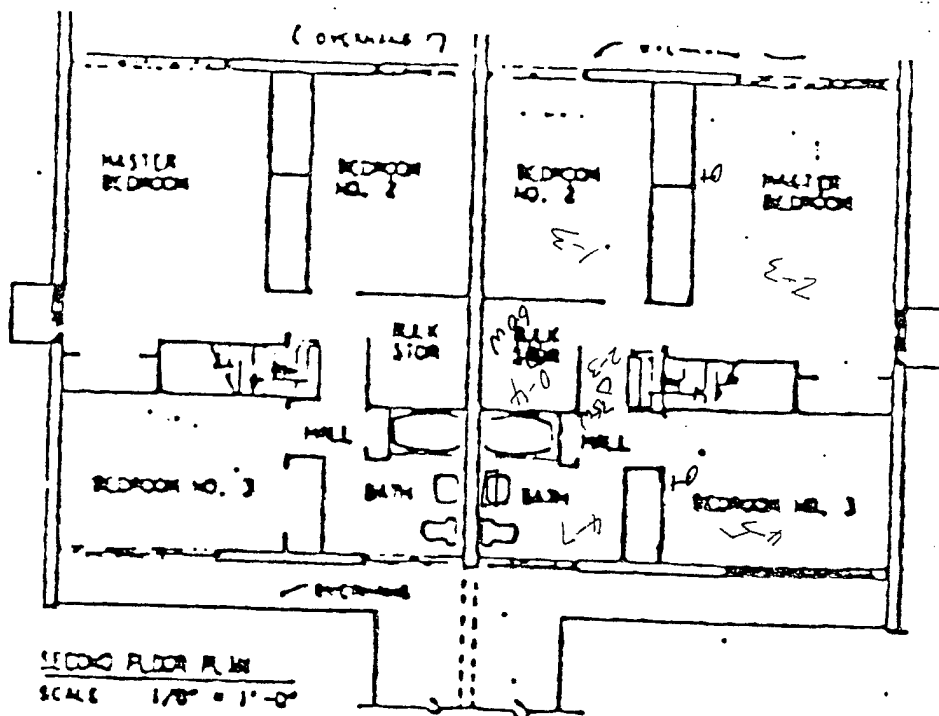
FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

#3402 B

FIELD OFFICE OFFICER'S QUARTERS

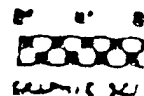
BUILDING NUMBER

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    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|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 730 | 731 | 732 | 733 | 734 | 735 | 736 | 737 | 738 | 739 | 740 | 741 | 742 | 743 | 744 | 745 | 746 | 747 | 748 | 749 | 750 | 751 | 752 | 753 | 754 | 755 | 756 | 757 | 758 | 759 | 760 | 761 | 762 | 763 | 764 | 765 | 766 | 767 | 768 | 769 | 770 | 771 | 772 | 773 | 774 | 775 | 776 | 777 | 778 | 779 | 780 | 781 | 782 | 783 | 784 | 785 | 786 | 787 | 788 | 789 | 790 | 791 | 792 | 793 | 794 | 795 | 796 | 797 | 798 | 799 | 800 | 801 | 802 | 803 | 804 | 805 | 806 | 807 | 808 | 809 | 810 | 811 | 812 | 813 | 814 | 815 | 816 | 817 | 818 | 819 | 820 | 821 | 822 | 823 | 824 | 825 | 826 | 827 | 828 | 829 | 830 | 831 | 832 | 833 | 834 | 835 | 836 | 837 | 838 | 839 | 840 | 841 | 842 | 843 | 844 | 845 | 846 | 847 | 848 | 849 | 850 | 851 | 852 | 853 | 854 | 855 | 856 | 857 | 858 | 859 | 860 | 861 | 862 | 863 | 864 | 865 | 866 | 867 | 868 | 869 | 870 | 871 | 872 | 873 | 874 | 875 | 876 | 877 | 878 | 879 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 890 | 891 | 892 | 893 | 894 | 895 | 896 | 897 | 898 | 899 | 900 | 901 | 902 | 903 | 904 | 905 | 906 | 907 | 908 | 909 | 910 | 911 | 912 | 913 | 914 | 915 | 916 | 917 | 918 | 919 | 920 | 921 | 922 | 923 | 924 | 925 | 926 | 927 | 928 | 929 | 930 | 931 | 932 | 933 | 934 | 935 | 936 | 937 | 938 | 939 | 940 | 941 | 942 | 943 | 944 | 945 | 946 | 947 | 948 | 949 | 950 | 951 | 952 | 953 | 954 | 955 | 956 | 957 | 958 | 959 | 960 | 961 | 962 | 963 | 964 | 965 | 966 | 967 | 968 | 969 | 970 | 971 | 972 | 973 | 974 | 975 | 976 | 977 | 978 | 979 | 980 | 981 | 982 | 983 | 984 | 985 | 986 | 987 | 988 | 989 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 | 998 | 999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1070 | 1071 | 1072 | 1073 | 1074 | 1075 | 1076 | 1077 | 1078 | 1079 | 1080 | 1081 | 1082 | 1083 | 1084 | 1085 | 1086 | 1087 | 1088 | 1089 | 1090 | 1091 | 1092 | 1093 | 1094 | 1095 | 1096 | 1097 | 1098 | 1099 | 1100 | 1101 | 1102 | 1103 | 1104 | 1105 | 1106 | 1107 | 1108 | 1109 | 1110 | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 1120 | 1121 | 1122 | 1123 | 1124 | 1125 | 1126 | 1127 | 1128 | 1129 | 1130 | 1131 | 1132 | 1133 | 1134 | 1135 | 1136 | 1137 | 1138 | 1139 | 1140 | 1141 | 1142 | 1143 | 1144 | 1145 | 1146 | 1147 | 1148 | 1149 | 1150 | 1151 | 1152 | 1153 | 1154 | 1155 | 1156 | 1157 | 1158 | 1159 | 1160 | 1161 | 1162 | 1163 | 1164 | 1165 | 1166 | 1167 | 1168 | 1169 | 1170 | 1171 | 1172 | 1173 | 1174 | 1175 | 1176 | 1177 | 1178 | 1179 | 1180 | 1181 | 1182 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-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57-II

3401, 3402, 3405.  
3406, 3410, 3411  
3413, 3414.



Date: 1/15/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3405

Building Type: 57-II

Apartment: A

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY, EVERY OTHER DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



same as 3401A

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

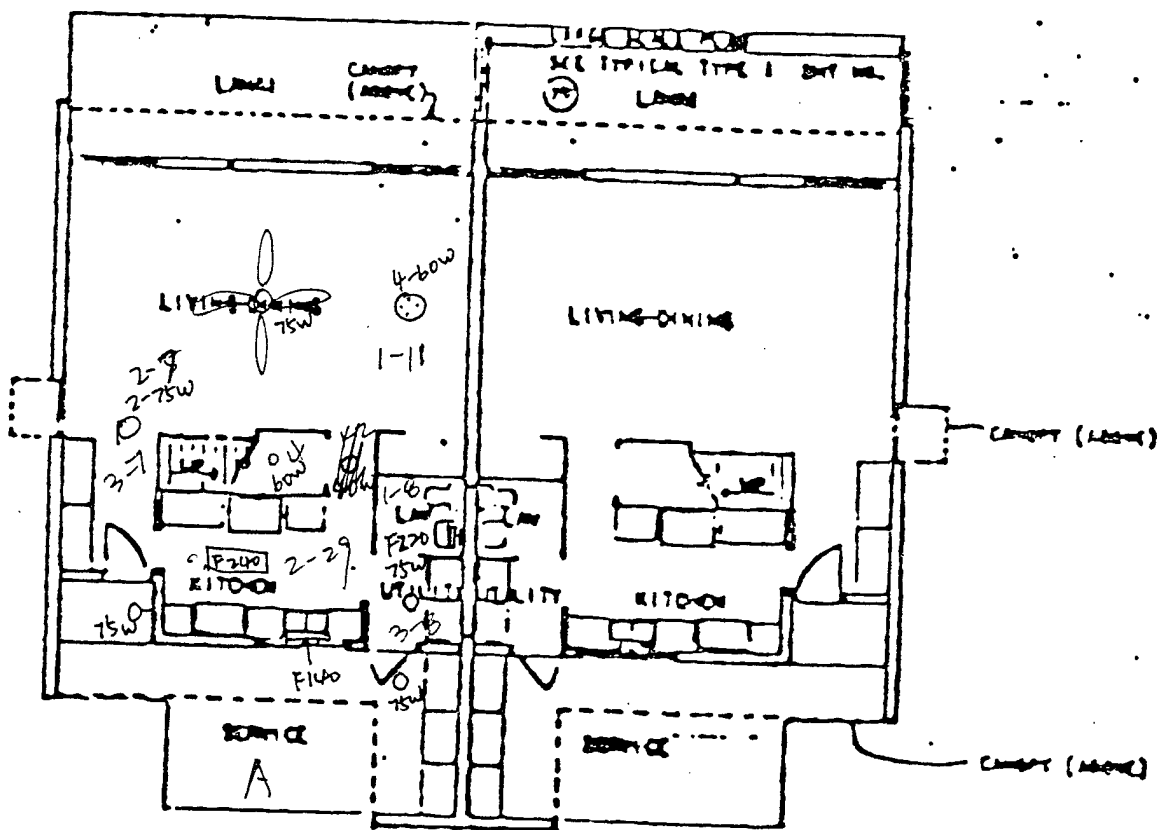
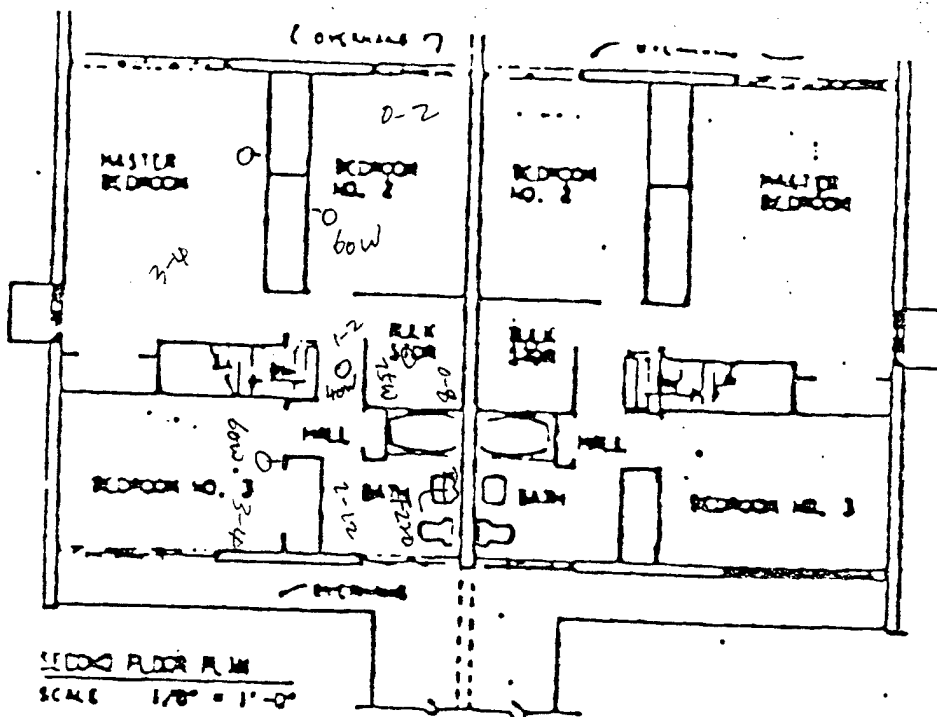
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

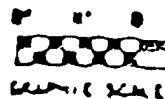
| Fixture       | Flow      | Water Temp. | Remarks                        |
|---------------|-----------|-------------|--------------------------------|
| KIT. SK.      | 1.5 l/10s | 128 F       | Diff faucet head               |
| Bathroom shwr | 2 l/10s   | 110 F       | Shwr Massage Head by Water Pik |
|               |           |             |                                |
|               |           |             |                                |
|               |           |             |                                |
|               |           |             |                                |
|               |           |             |                                |
|               |           |             |                                |





57-II

3401, 3402, 3405.  
3406, 3410, 3411  
3413, 3414.



Date: 1/15/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3406

Building Type: 57-II

Apartment: A

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 6

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 3401A

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

same as 34.1 A

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- (4)

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

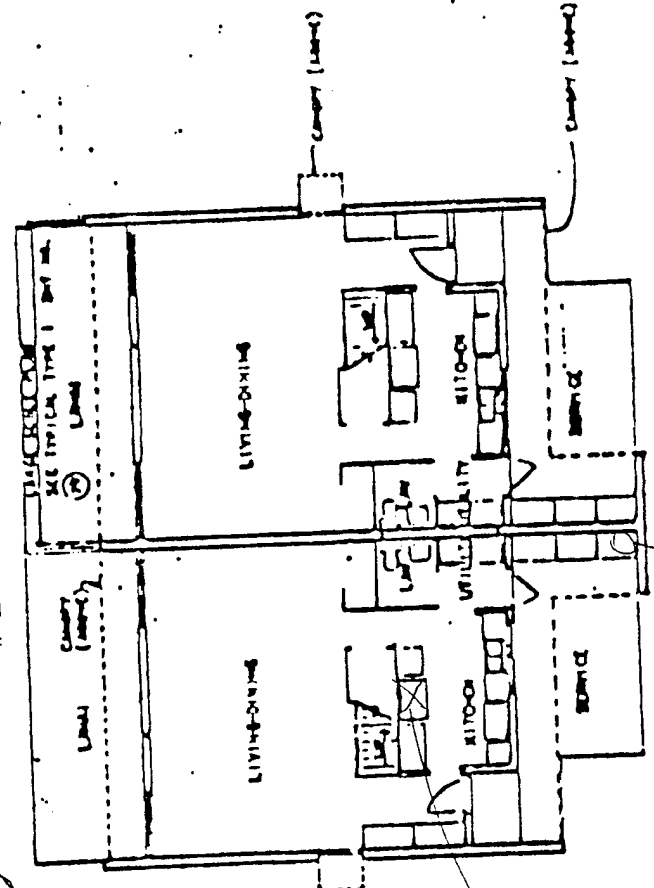
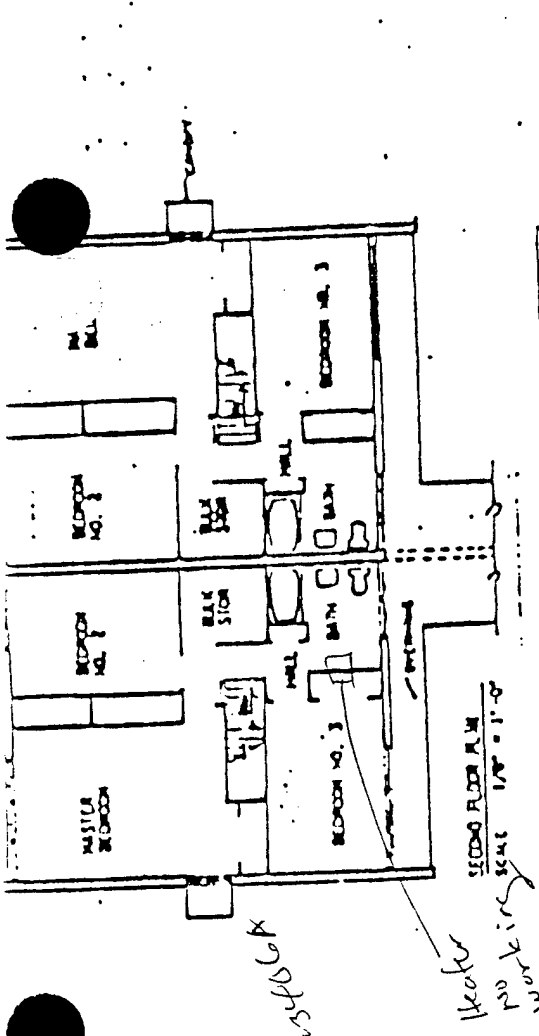
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

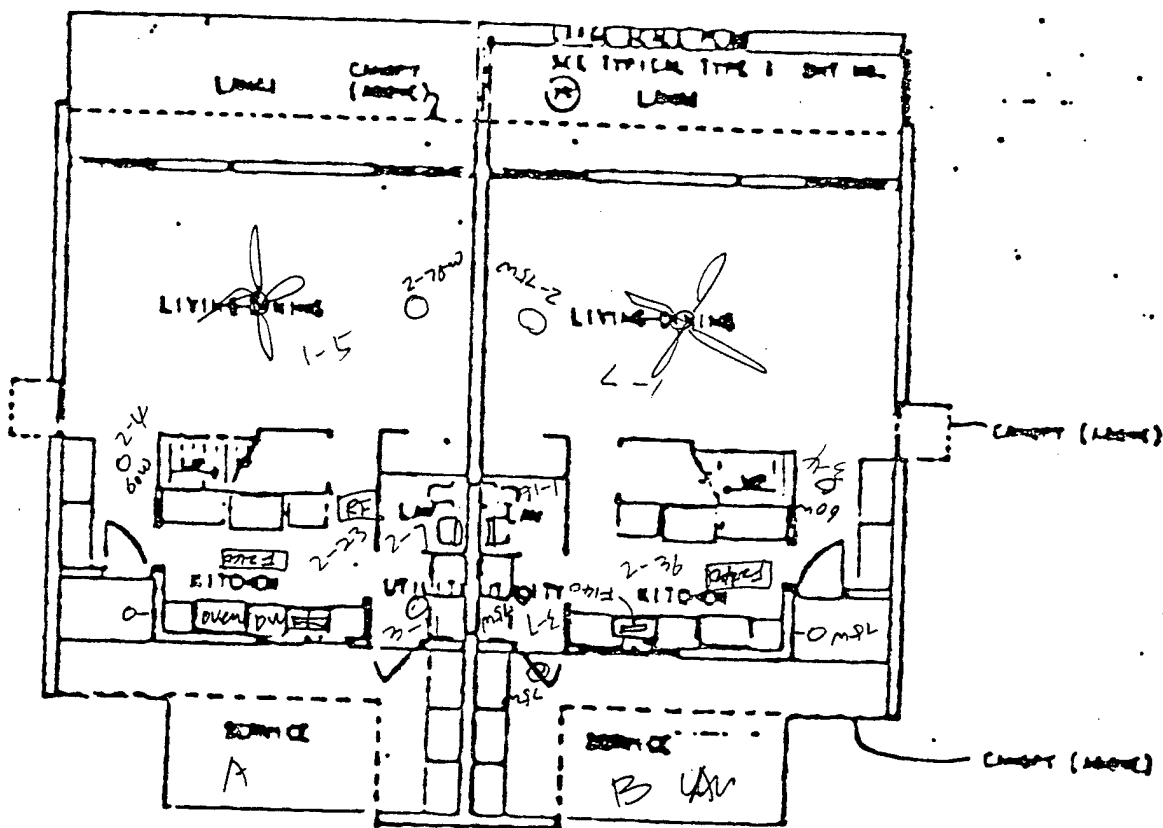
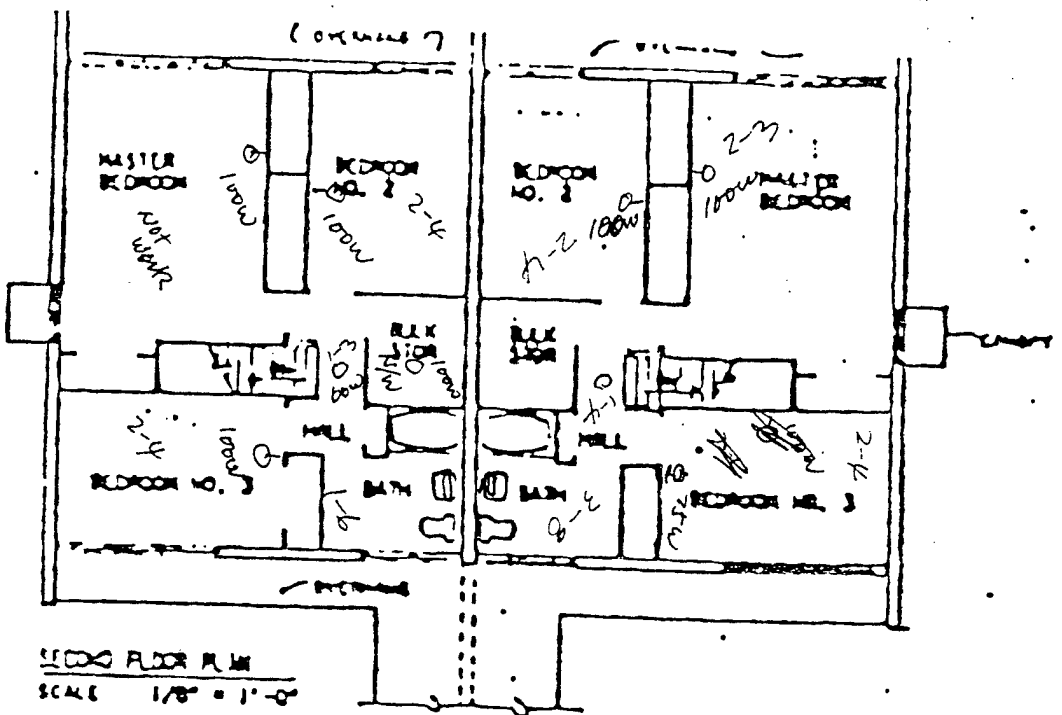
| Fixture         | Flow   | Water Temp. | Remarks |
|-----------------|--------|-------------|---------|
| Kit SK          | 22/105 | 128         |         |
| Bathroom Shower | 12/105 | 114F        |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
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EW 4  
66 yd. row  
HP 13 yd. raised

Type 57-II

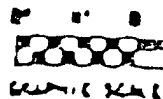


57-II

3401, 3402, 3405.

3406, 3410, 3411

3413, 3414.



Date: 11/15/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3406

Building Type: 57-II

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as 3401A

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

3.0 HOT WATER SYSTEM

*same as 3401A*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓        Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

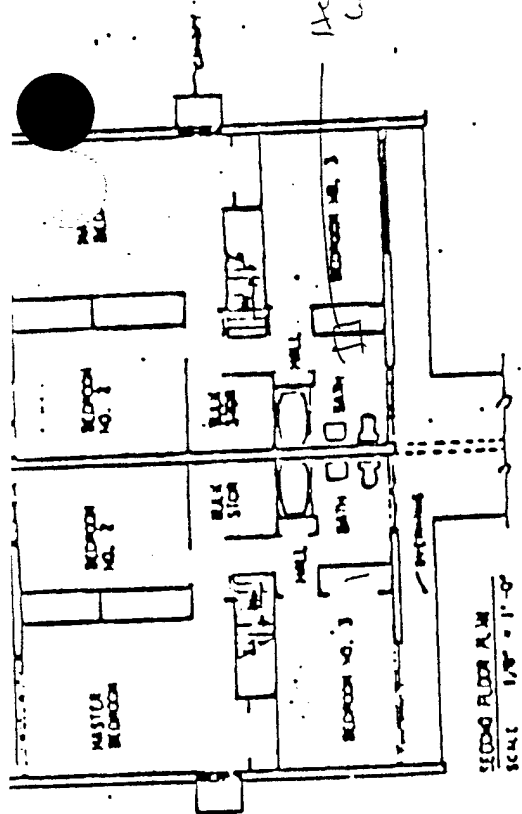
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

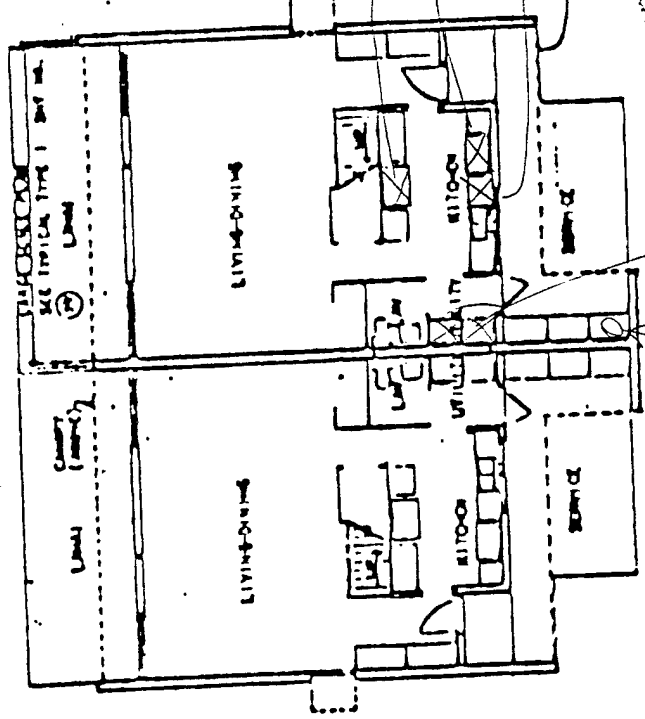
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture       | Flow   | Water Temp. | Remarks |
|---------------|--------|-------------|---------|
| Kit. Sk       | 2l/10s | 120 F       |         |
| Bathroom SHWR | 3l/10s | 120 F       |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |



3406 #B

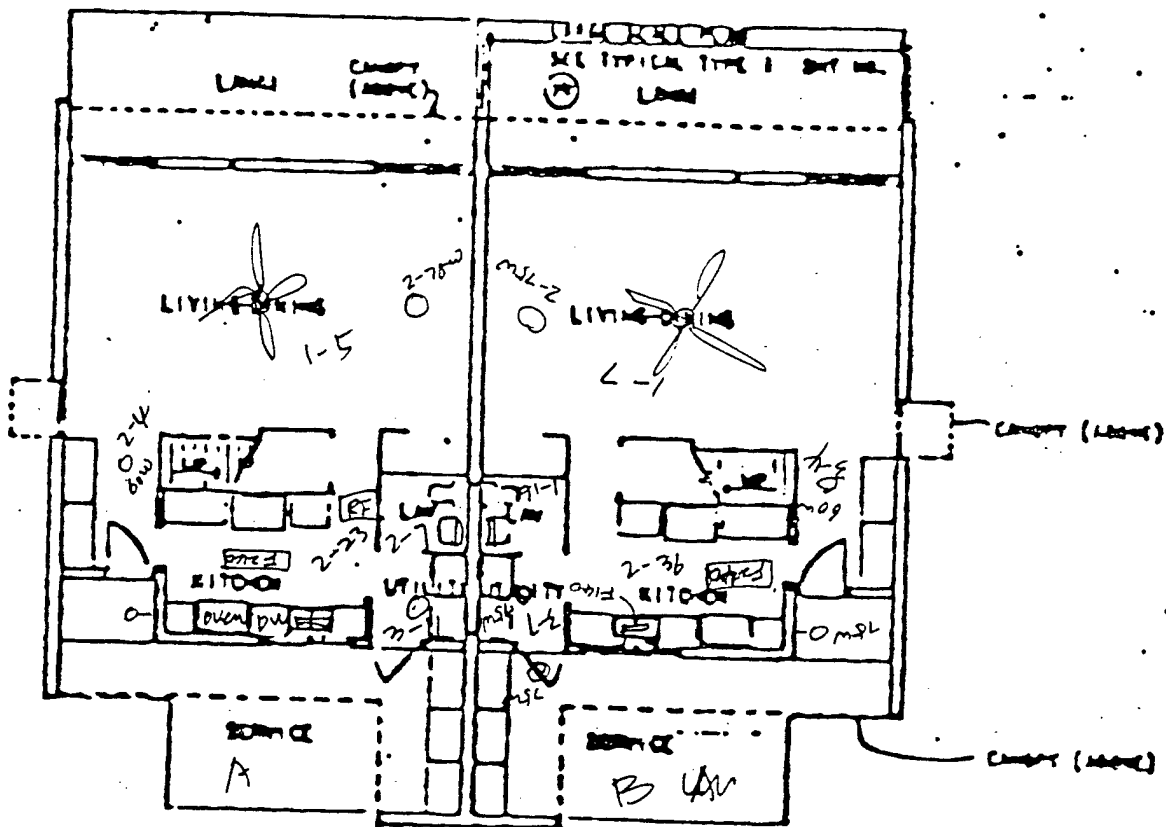
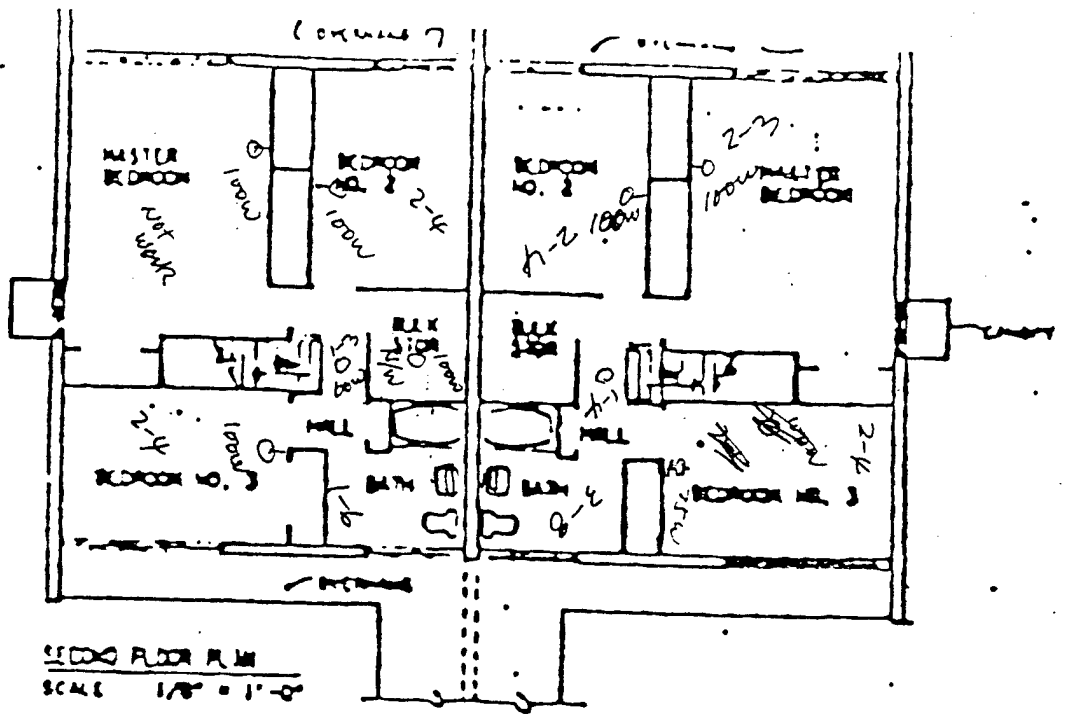


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Type 57-II

| REVISIONS |          | DATE | BY | APP'D |
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| 1         | REVISION |      |    |       |
| 2         | REVISION |      |    |       |
| 3         | REVISION |      |    |       |
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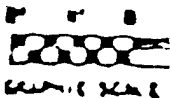


57-II

3401, 3402, 3405.

3406, 3410, 3411

3413, 3414.





UNIT TYPE 57-III

Date: 1/16/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3403A

Building Type: 57-III

Apartment: 3

No. Bedrooms: \_\_\_\_\_

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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2.0 ARCHITECTURAL

*Same as 57-II*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
  ✓   Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

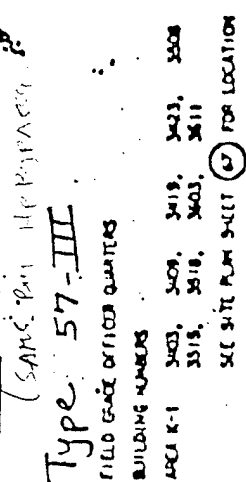
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture       | Flow   | Water Temp. | Remarks |
|---------------|--------|-------------|---------|
| Kit SK        | 22/10s | 112F        |         |
| Bathroom Shwr | 12/10s | 112F        |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |



Type: 57-III

2011年10月10日

## BUILDING MATERIALS

1-2 100  
3-4 100  
5-6 100  
7-8 100  
9-10 100  
11-12 100  
13-14 100  
15-16 100  
17-18 100  
19-20 100  
21-22 100  
23-24 100  
25-26 100  
27-28 100  
29-30 100  
31-32 100  
33-34 100  
35-36 100  
37-38 100  
39-40 100  
41-42 100  
43-44 100  
45-46 100  
47-48 100  
49-50 100  
51-52 100  
53-54 100  
55-56 100  
57-58 100  
59-60 100  
61-62 100  
63-64 100  
65-66 100  
67-68 100  
69-70 100  
71-72 100  
73-74 100  
75-76 100  
77-78 100  
79-80 100  
81-82 100  
83-84 100  
85-86 100  
87-88 100  
89-90 100  
91-92 100  
93-94 100  
95-96 100  
97-98 100  
99-100 100

1775 MAY 21 11 51 AM '57

[illegible]

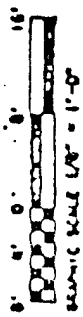
# 3403A

FLOOR PLAN  
SCALE 1/8" = 1'-0"

Refrig.  
Gibson. Frost Clear.

II ~~10~~ 15  
m  
27 1/2  
10 1/2

|  |    |    |         |
|--|----|----|---------|
| REVISIONS                                    |    |    |         |
| FAMILY HOUSING                               |    |    |         |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS |    |    |         |
| CARPENT HOUSING, SCHOFIELD 1937 AREA 1-1     |    |    |         |
| FLOOR PLAN TYPE B                            |    |    |         |
| SCHOFIELD BARBERS                            |    |    |         |
| OLYMPIA, HAWAII                              |    |    |         |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |    |    |         |
| COMPS OF ENGINEERS                           |    |    |         |
| HONOLULU, HAWAII                             |    |    |         |
| LOC CODE 1200                                | 25 | 23 | 07      |
|  |    |    | 3-07-16 |





Date: 1/16/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3403

Building Type: 57-III

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

Same as  
57-II

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Conc. (CMU) 6"

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Conc.

BUR

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

*same as 57-II*

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

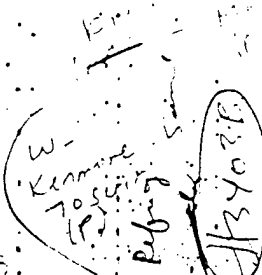
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture         | Flow   | Water Temp. | Remarks |
|-----------------|--------|-------------|---------|
| Kitchen         | 22/10s | 124 F       |         |
| Bathroom Shower | 22/10s | 110 F       |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |

Alfred  
Bills, 8,000



Type 57-III

DELIVERED TO THE ORDER OF THE

## Building walls

2  
 2  
 2  
 2  
 2  
 2

THE CITY OF NEW YORK

David A. Saxe

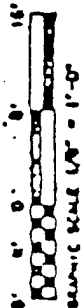
sun ray  
of pure fair light.

# 3403A.

SCALE 1/4" = 1'-0"

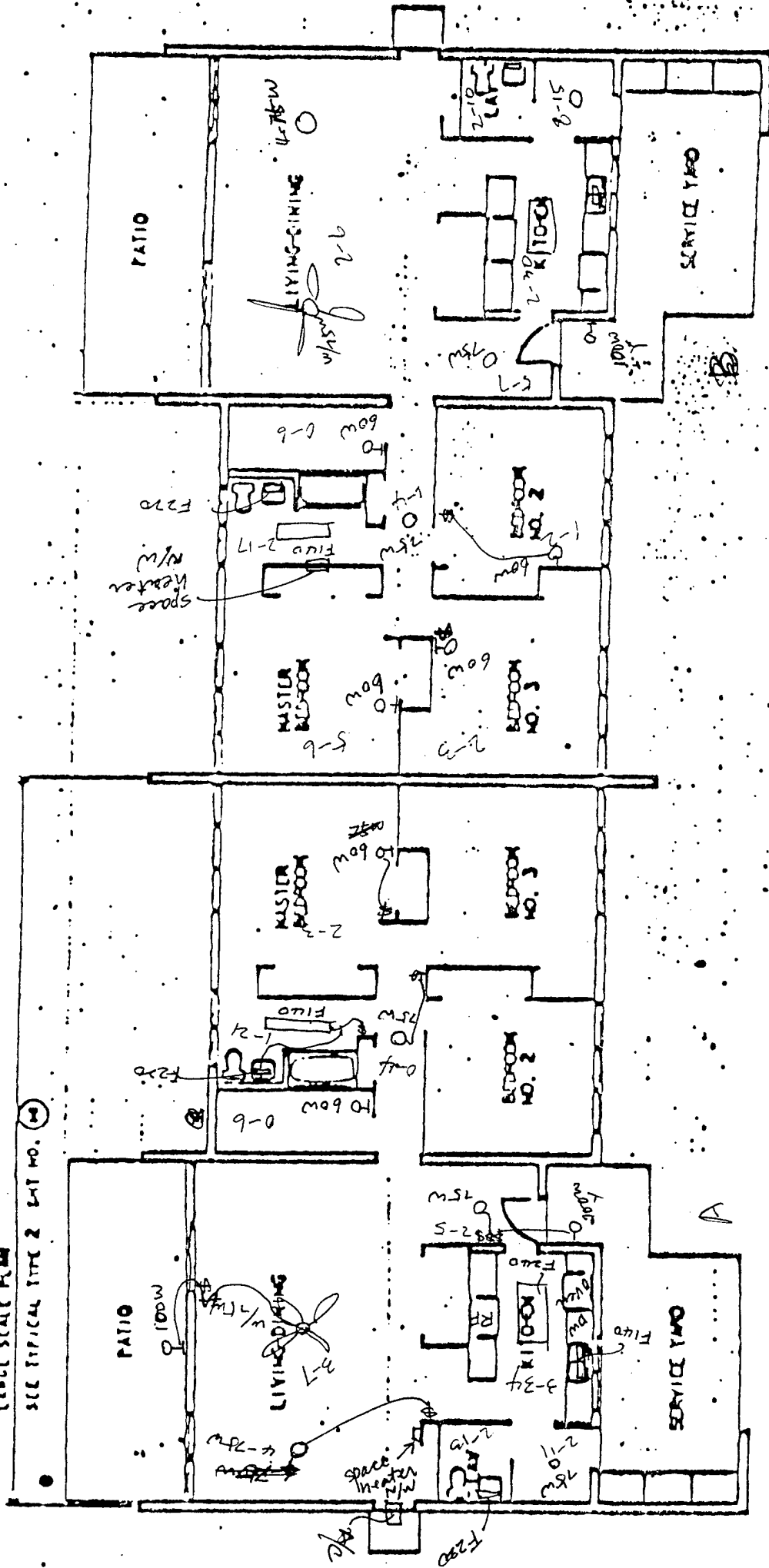
Refining:  
Gibson. Fast Clear.

II. ~~III~~ - 15 - 1903  
not posted  
27 Jan 1903

[illegible]

SEE TYPICAL TYPE 2 UNIT NO. 2

SEE TYPICAL TYPE 2 UNIT NO. 2



Type 57-III

Type 57

3403 3409 3418  
8096 6246 6144  
3403 3409 3418  
3403 3409 3418

FIELD OFFICE  
BUILDING NUMBER  
1-1 3403  
3418

FLOOR PLAN  
SCALE 1/2" = 1'-0"

Date: 11/16/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3409

Building Type: S7-III

Apartment: A

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 34

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 20

Average No. of Times Dishwasher Used/Day: 2

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*Same as 57-II*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

### Reflective Coating

same as 5.7-II

### 3.0 HOT WATER SYSTEM

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- a. Is System Supported from (check one):

           Central Plant                                 One System per Building

       Several Small Systems per Building

Individual EWH/Unit

- b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F

- c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

Insulation Thickness: \_\_\_\_\_

- e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

2) Circulator capacity \_\_\_\_\_

3) Is aquastat provided?

4) Aquastat temperature setting \_\_\_\_\_

5) Mfg/Model \_\_\_\_\_

6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_

- b. Areas Served \_\_\_\_\_

- c.. Manufacturer and Model \_\_\_\_\_

- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

- e. Type Heaters & Quantities:

- 1) Storage \_\_\_\_\_

- 2) Instantaneous

- 3)
- Semi-Instantaneous
- \_\_\_\_\_

- f. Heater Size and Storage Capacity \_\_\_\_\_



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

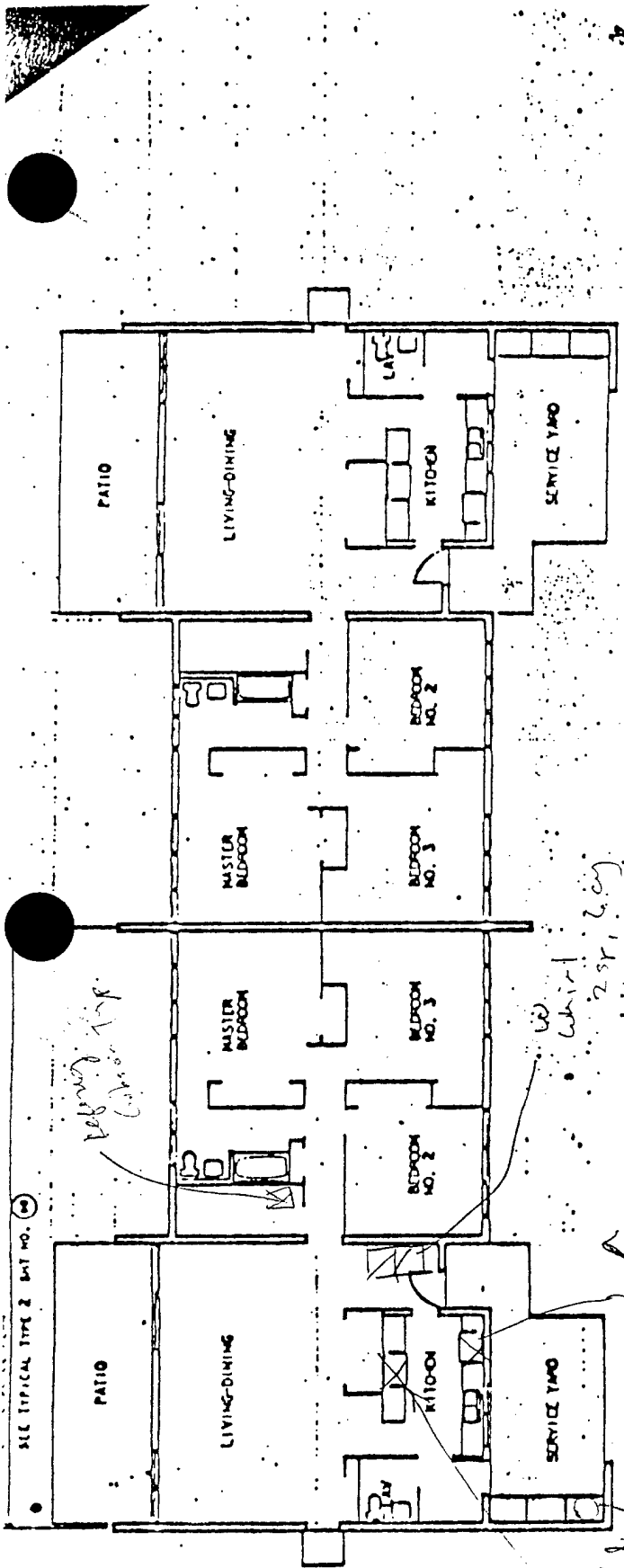
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

*Water not hot off*

| Fixture      | Flow     | Water Temp. | Remarks |
|--------------|----------|-------------|---------|
| KIT. SK      | 2.5l/10s | 106 F       |         |
| Bathroom Tub | 1l/10s   | 100 F       |         |
|              |          |             |         |
|              |          |             |         |
|              |          |             |         |
|              |          |             |         |
|              |          |             |         |
|              |          |             |         |



Type 57-III

FIELD GRADE OFFICE QUARTERS

BUILDING NUMBERS

AREA K-1 3403, 3409, 3419, 3423, 3408  
3415, 3418, 3403, 3411  
SEE SITE PLUM SHEET 6 FOR LOCATION

FLOOR PLAN  
SCALE 1/8" = 1'-0"

34.69 A  
2nd fl. H/W  
11' x 11' not working

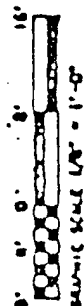
conc. roof

Whirl 2 sr, 2 cy

Whirl 4 cy, 3 ft

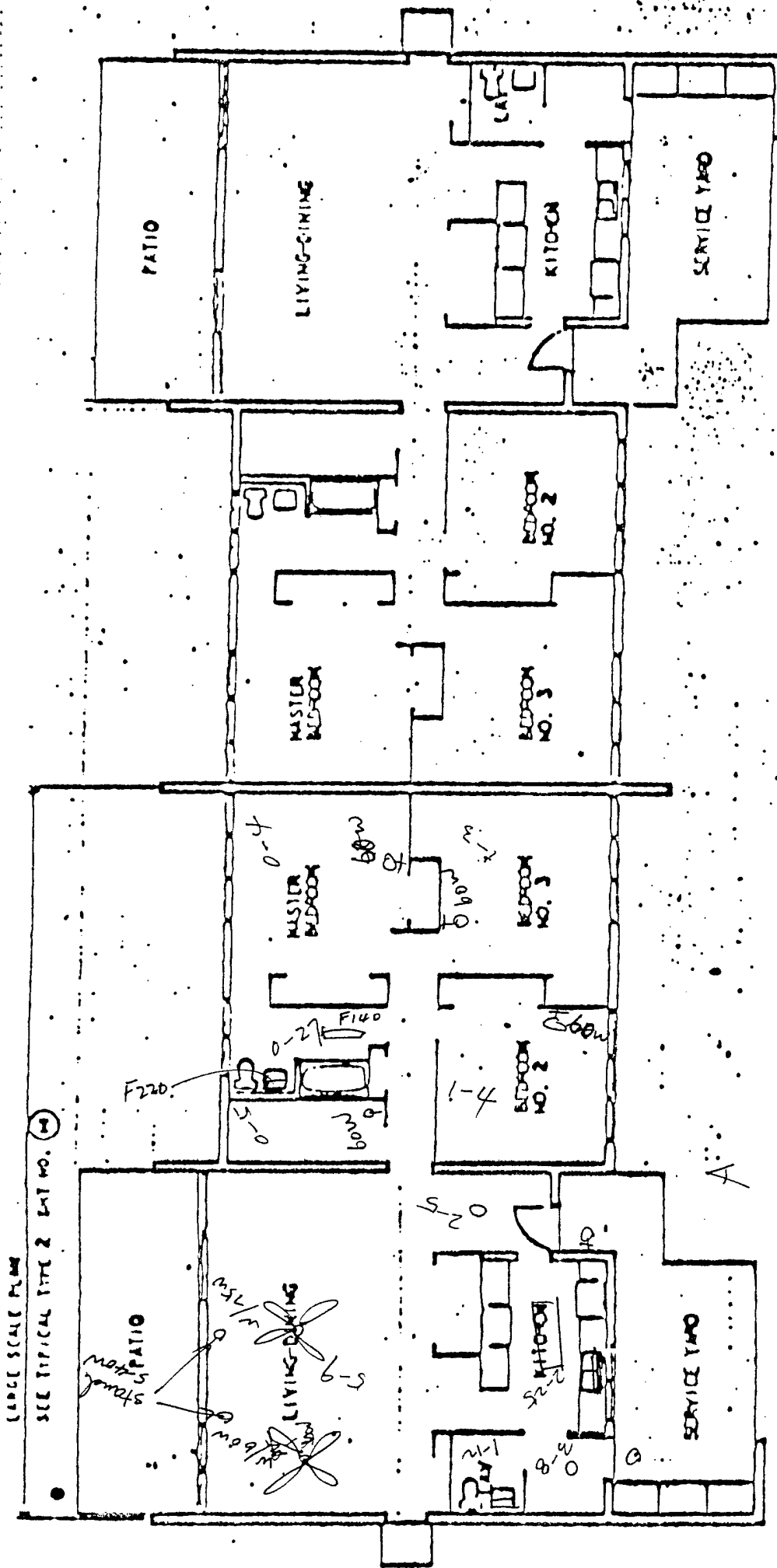
Rearage  
whirl  
w/ natural  
fan

Ref. ing. 2  
N. 11' x 11'



| REVISIONS                                    |                  |
|--|------------------|
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS |                  |
| CAPITAL HOSING SCHEDULE 1957 AREA A-1        |                  |
| FLOOR PLAN                                   | TYPE B           |
| SCHOOL BUILDINGS                             | 0-40, 0-40, 0-40 |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |                  |
| COMPS OF ENGINEERS                           |                  |
| MOORE, HAWAII                                |                  |
| LOC. CODE 1008                               | 23 23 OF 30 14   |

MS 1973



Type 57-III  
 3403 3409 3418  
 3419 3423 3508  
 3515 3518

Type 5  
 FIELD OFFICE  
 BUILDING NUMBERS  
 AREA K-1 3403  
 3518

SEE TYPICAL TYPE 2 UNIT NO. 1

FLOOR PLAN  
 SCALE 1/2" = 1'-0"

Date: 1/16/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3515A

Building Type: 57-III

Apartment: A

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 6

Average No. of Laundry Loads/Week: 20

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*same as 57-II*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

same as  $\sin^{-1}x$

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

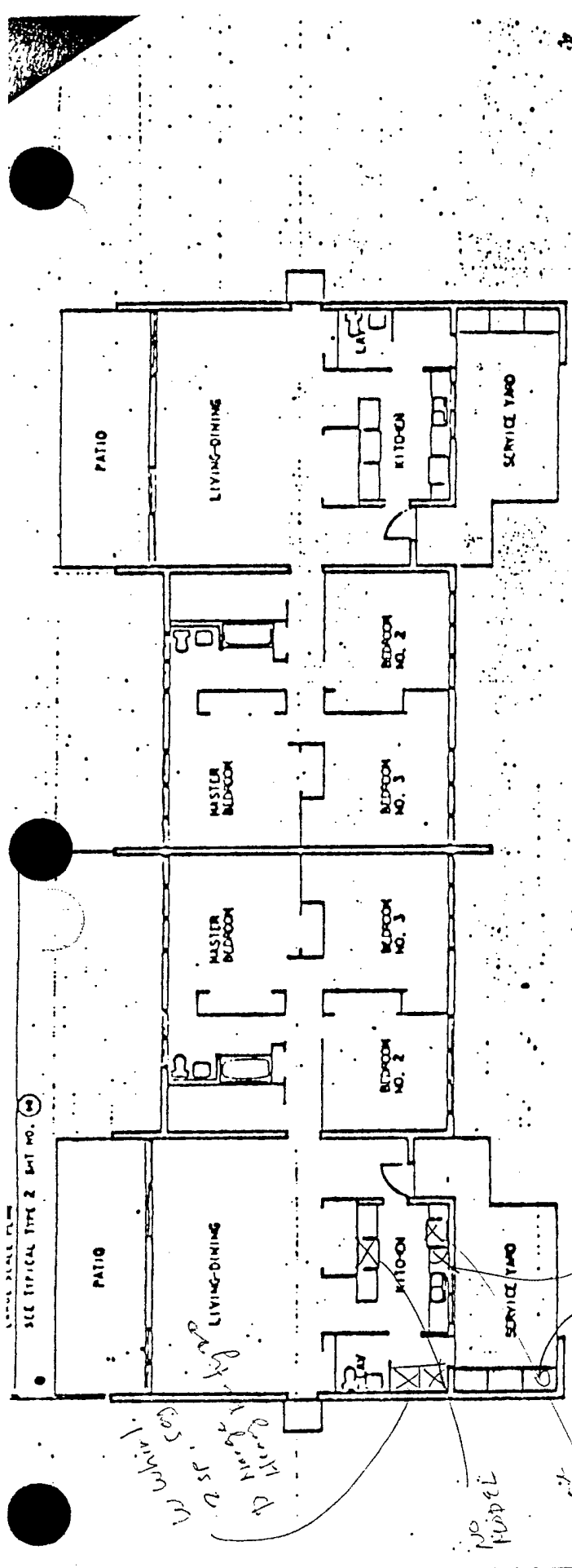
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow      | Water Temp. | Remarks |
|---------|-----------|-------------|---------|
| Kit SK  | 1.5 l/10s | 120 F       |         |
|         |           |             |         |
|         |           |             |         |
|         |           |             |         |
|         |           |             |         |
|         |           |             |         |
|         |           |             |         |
|         |           |             |         |
|         |           |             |         |
|         |           |             |         |



# Type 57-III

FIELD GRADE OFFICER QUARTERS

BUILDING NUMBERS

AREA K-1 3403, 3409, 3419, 3423, 3508  
3515, 3518, 3603, 3611  
SEE SITE PLAN SHEET 67 FOR LOCATION

FLOOR PLAN  
SCALE 1/8" = 1'-0"

3515A

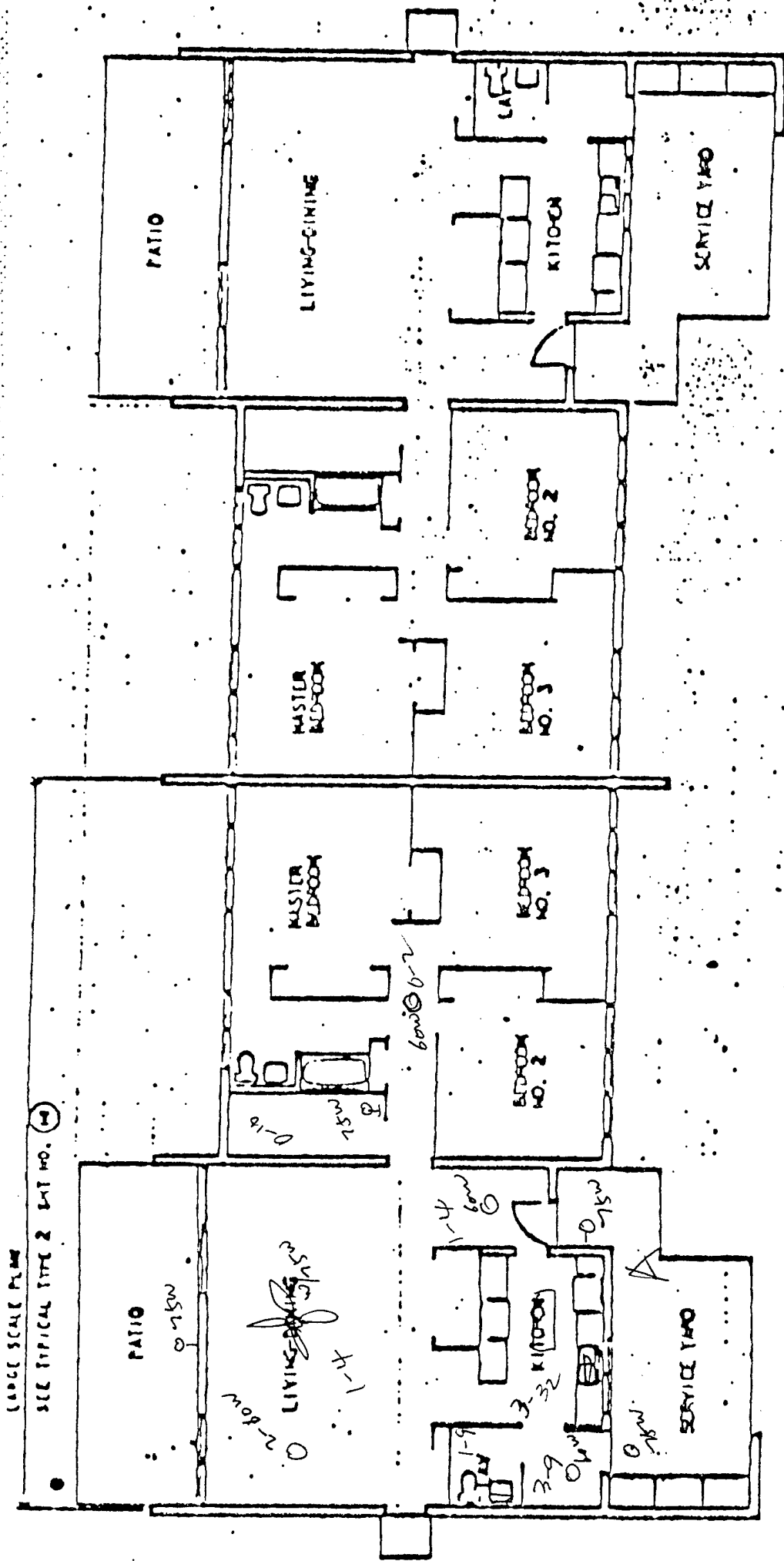
equal to HP same

Insu. piping in closed space Airman's ex. 14



| REVISIONS                                    |    |    |    |         |
|--|----|----|----|---------|
| FAMILY HOUSING                               |    |    |    |         |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS |    |    |    |         |
| CURRENT HOUSING STOCKED 1957 AREA K-1        |    |    |    |         |
| FLOOR PLAN                                   |    |    |    |         |
| TYPE B                                       |    |    |    |         |
| SCORFIELD BARRACKS                           |    |    |    |         |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |    |    |    |         |
| COMPS OF ENGINEERS                           |    |    |    |         |
| HONOLULU, HAWAII                             |    |    |    |         |
| LOC. CODE 3508                               | 25 | 23 | OF | 340, 16 |
| MAY 1957                                     |    |    |    |         |





Type 57-III

Type 57

FIELD GRADE OFFICE

BUILDING NUMBERS

AREA 1-1 3403, 3513

3403, 3409, 3418

3419, 3423, 3508

3415, 3419, 3423

FLOOR PLAN

SCALE 1/2" = 1'-0"

Date: 1/16/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3518

Building Type: 57-III

Apartment: A

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: \_\_\_\_\_

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*same as 57-II*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted /  
Reflective Coating /

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

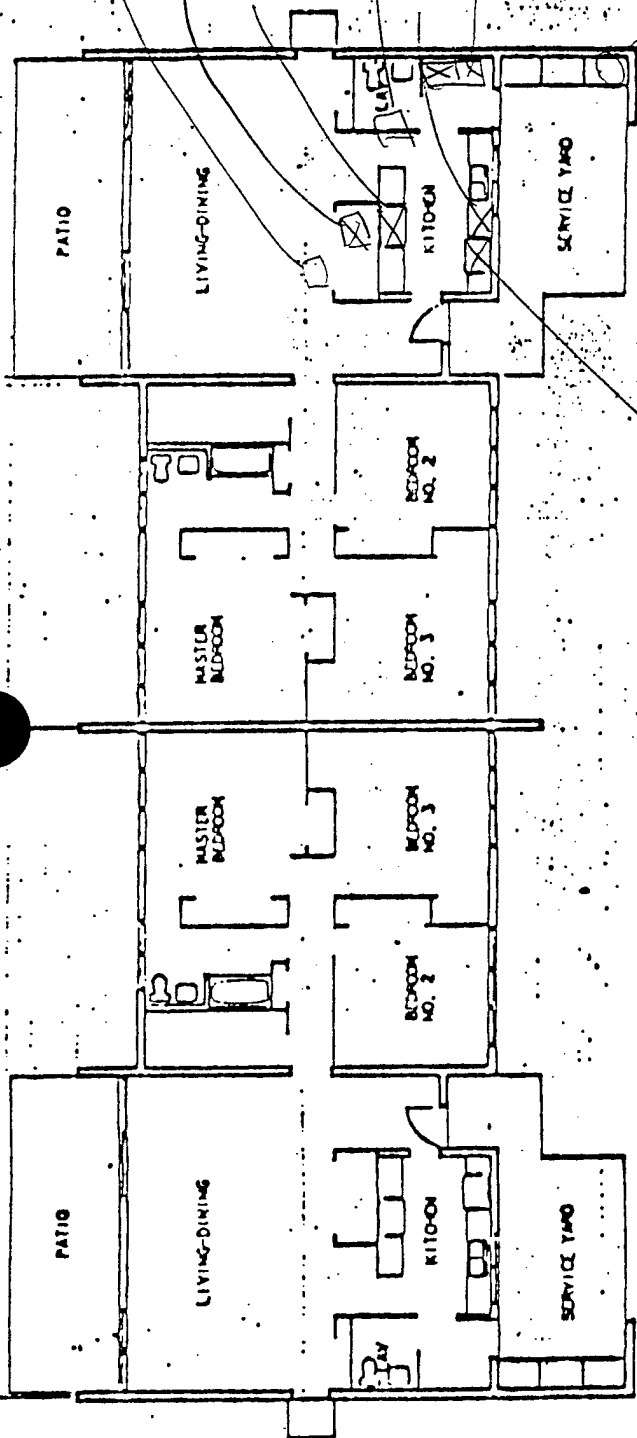
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow     | Water Temp. | Remarks |
|---------|----------|-------------|---------|
| K:1 SK  | 1.52/105 | 126°F       |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |

Am 7. 9. 1904



Type 57-III

FILED FOR OFFICE USE

**Building Windows**

$$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$$

THE SITE HAS BEEN SULLY (2) FOR LOCATION

24/11/2013

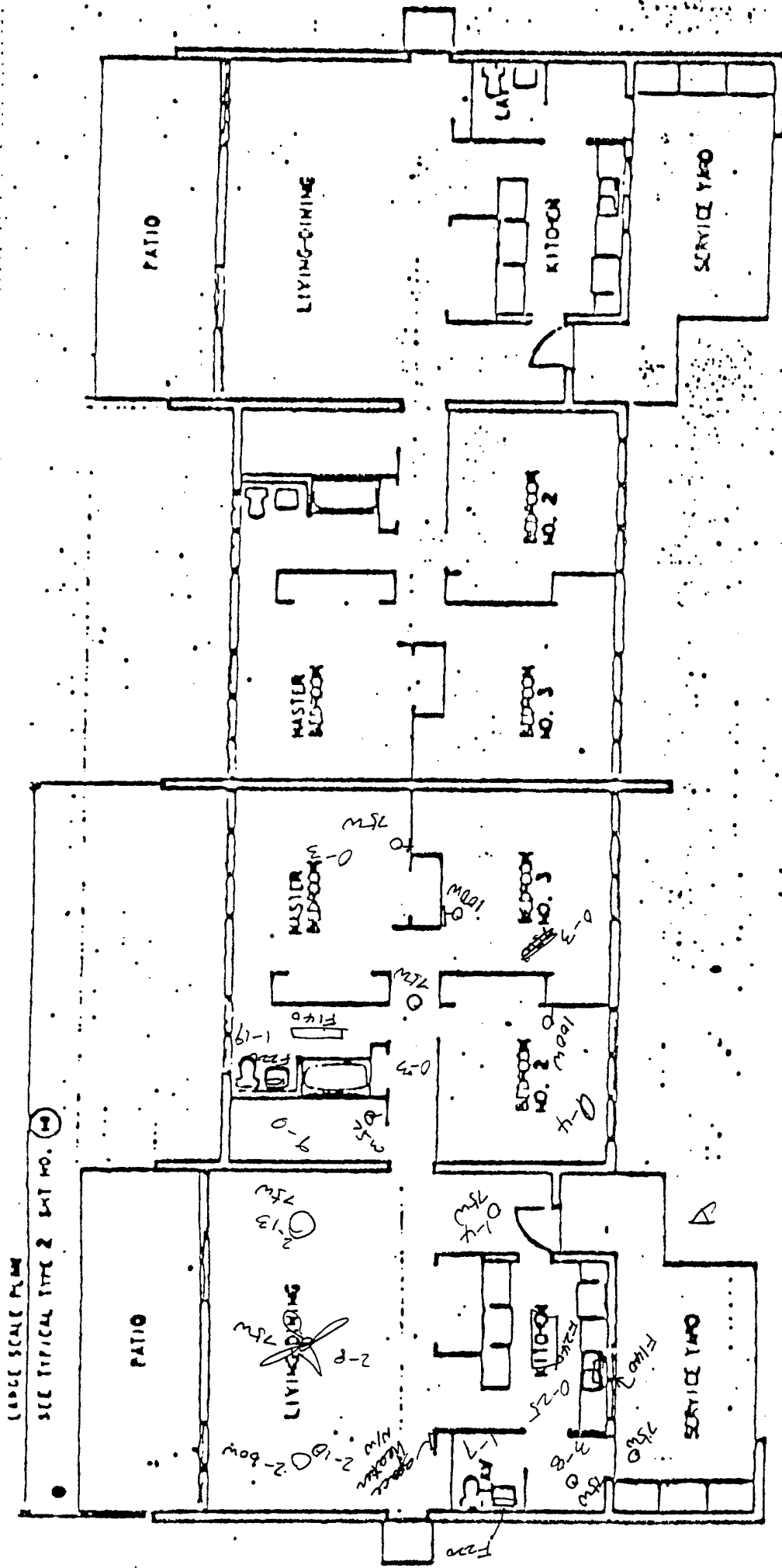
3418

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2-1-51 PM

10  
 9  
 8  
 7  
 6  
 5  
 4  
 3  
 2  
 1

|   |    |                    |      |
|---|----|--------------------|------|
| <p>REVISIONS</p> <p>FAMILY HOUSING</p> <p>BUDGETARY DATA FOR AIR CONDITIONING SUBJECTS</p> <p>CAPWORTH HOUSE#4 SCHOFFIELD 1937 AREA 1-1</p> <p>FLOOR PLAN</p> <p>TYPE B</p> |    |                    |      |
| SCHOFFIELD VARIANTS   |    | BANG, MARSHALL     |      |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN   |    | COMPS OF ENGINEERS |      |
| HONOLULU, HAWAII  |    |                    |      |
| LOC CODE 1938   | 23 | 23                 | 27   |
|   |    |                    | 290. |
|   |    |                    | 16   |



Type 67-III

Type 5

3403 3409 3418  
 3419 3423 3428  
 3415 3418

FIELD GRADE OFFICER  
 BUILDING NUMBER  
 AREA K-1 3403, 3418

1000 PLAN  
 SCALE 1/8" = 1'-0"

UNIT TYPE 57-IV



Date: 1/17/96  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3427  
Building Type: 57-IV  
Apartment: A  
No. Bedrooms: 3  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: ALL DAY  
No. of Occupants: 4  
Average No. of Showers/Day: 3  
Average No. of Laundry Loads/Week: 6  
Average No. of Times Dishwasher Used/Day: Not used  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

same as 57-III

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

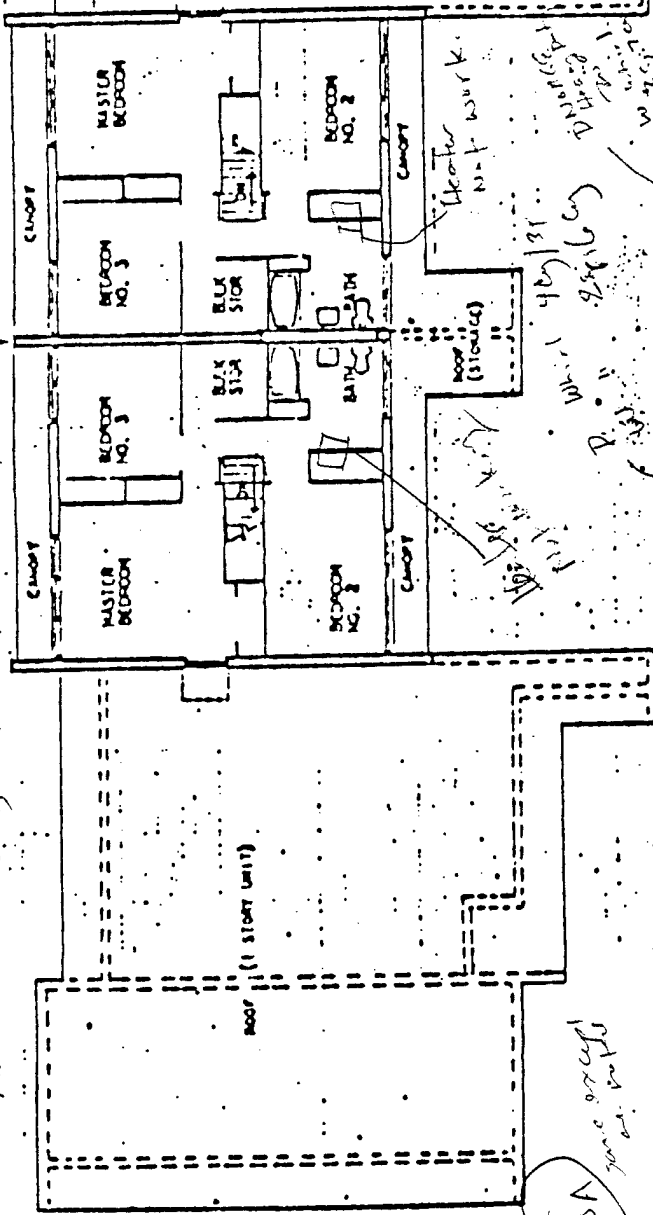
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

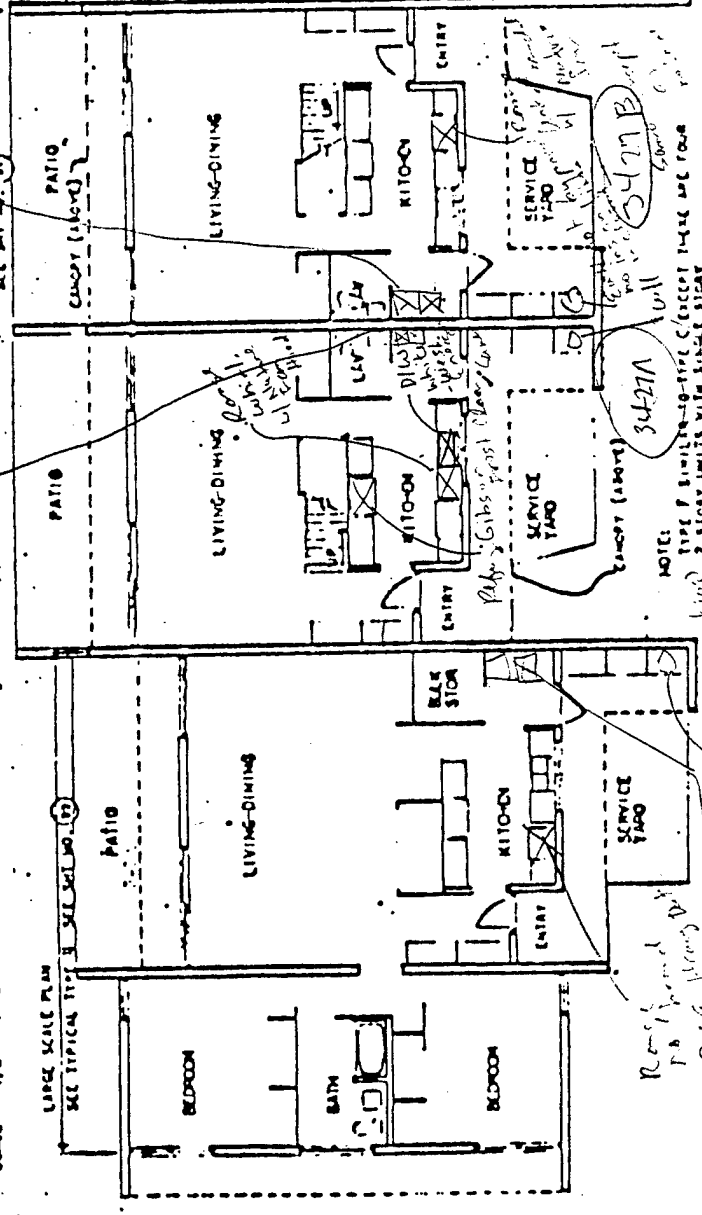
### 3.4 HOT WATER FIXTURES

| Fixture         | Flow   | Water Temp. | Remarks |
|-----------------|--------|-------------|---------|
| Kit SK          | 22/105 | 120 F       |         |
| Bathroom Shower | 22/105 | 112 F       |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |

17-6-97



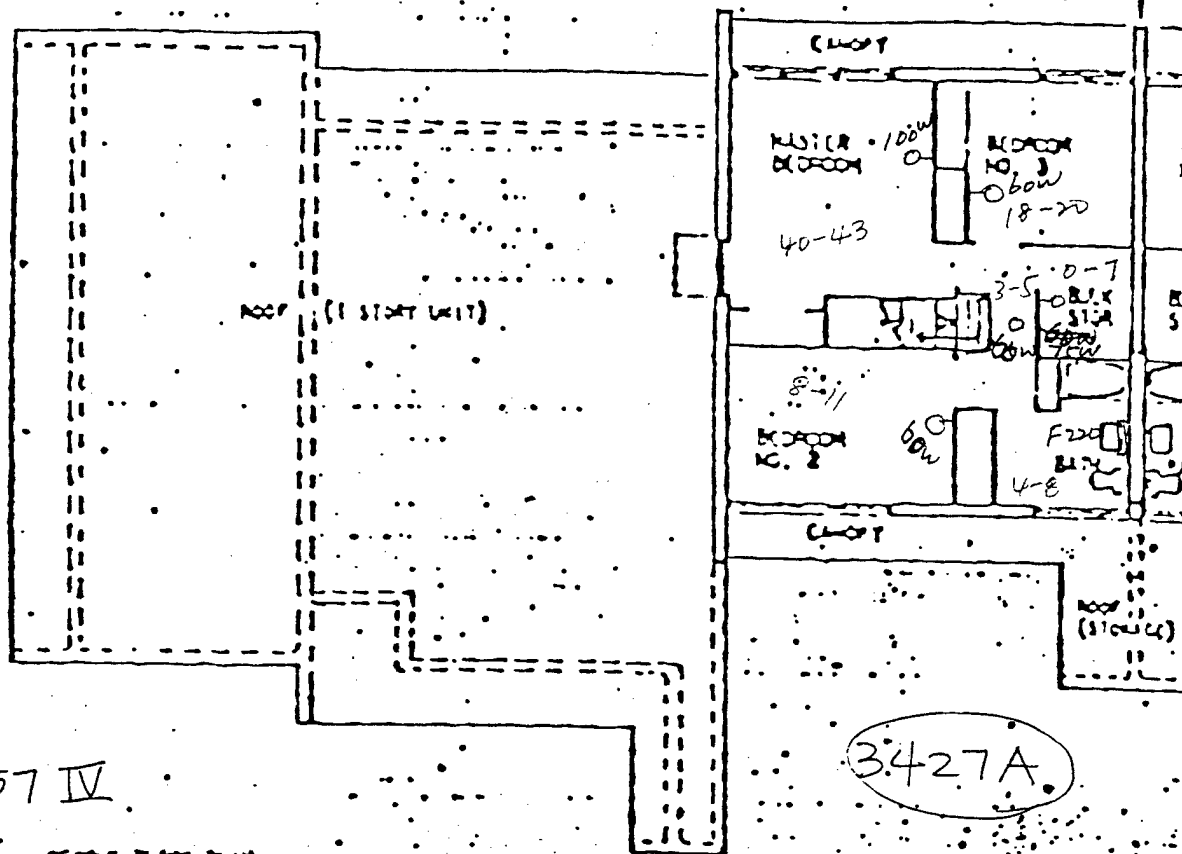
SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



SEE SITE PLAN SHEET 67 FOR LOCATION

Type 57-V  
& 57-IV

|   |    |    |    |      |    |
|---|----|----|----|------|----|
| LOC. CODE 0298  | 25 | 23 | 07 | 9-11 | 17 |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN<br>DEPT. OF ENGINEERS<br>HONOLULU, HAWAII |    |    |    |      |    |
| SCHOFFIELD BARBERS  |    |    |    |      |    |
| FAMILY HOUSING  |    |    |    |      |    |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS  |    |    |    |      |    |
| CAPTAIN H. SCHOFFIELD 1957 AREA C-1   |    |    |    |      |    |
| FIRST AND SECOND FLOOR PLANS TYPE C   |    |    |    |      |    |

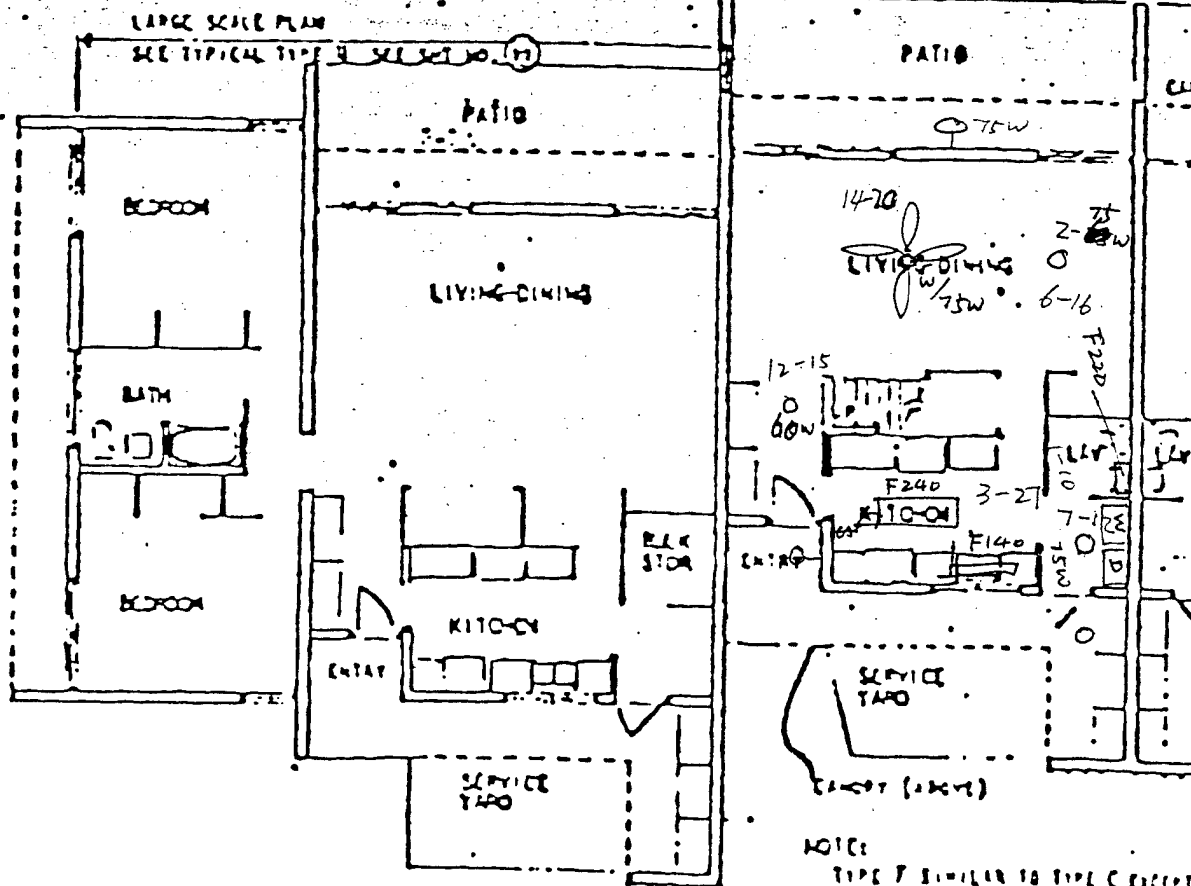


TYPE 57 IV & 57 IV

SECOND FLOOR PLAN

SCALE 1/8" = 1'-0"

SEE ABOUT CENTERING 2



3427A

NOTE:

TYPE F SIMILAR TO TYPE C EXCEPT 2 STORY UNITS WITH SINGLE STORY

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3427  
Building Type: 57-IV  
Apartment: B  
No. Bedrooms: 3  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: ALL DAY  
No. of Occupants: 3  
Average No. of Showers/Day: 6  
Average No. of Laundry Loads/Week: 4  
Average No. of Times Dishwasher Used/Day: Not Used  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



Window Yes No  
Tinted ✓  
Reflective Coating ✓

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*same as S7-III*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

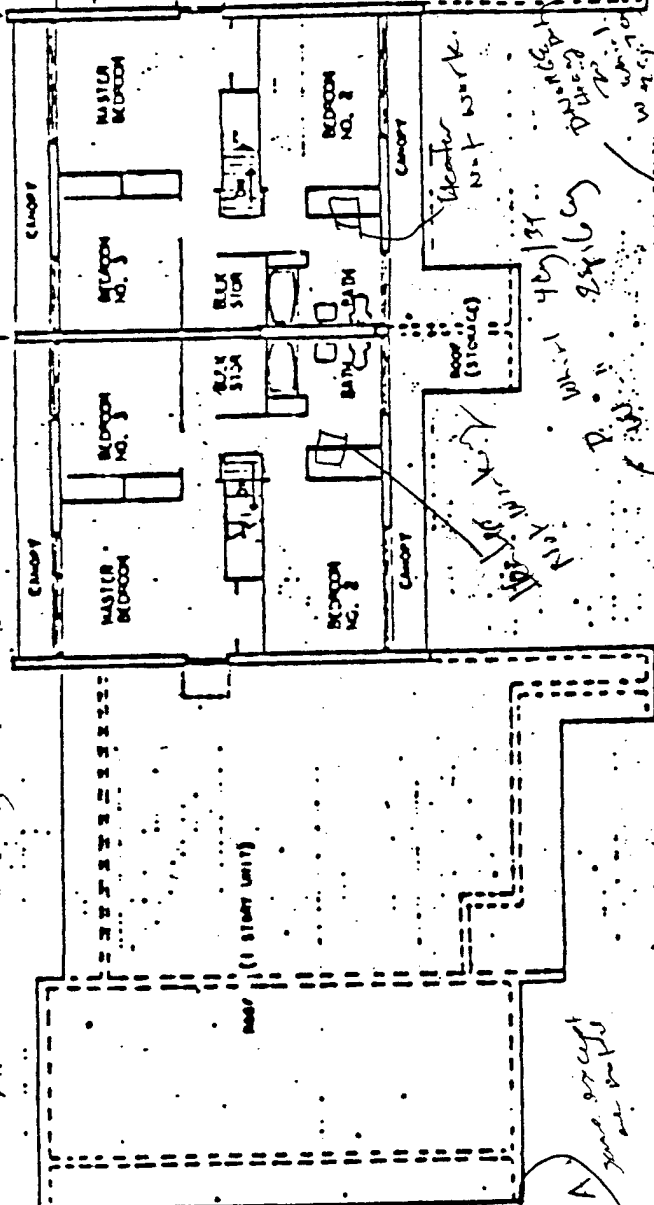
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture         | Flow   | Water Temp. | Remarks |
|-----------------|--------|-------------|---------|
| Kitchen         | 22/10s | 116         |         |
| Bathroom Shower | 22/10s | 112         |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |

BR 57-IV  
 4-2



SECOND FLOOR PLAN  
 SCALE 1/8" = 1'-0"

STN ABOUT CENTERLINE 2  
 SEE TYPICAL TYPE 3  
 SEE DETAIL 3

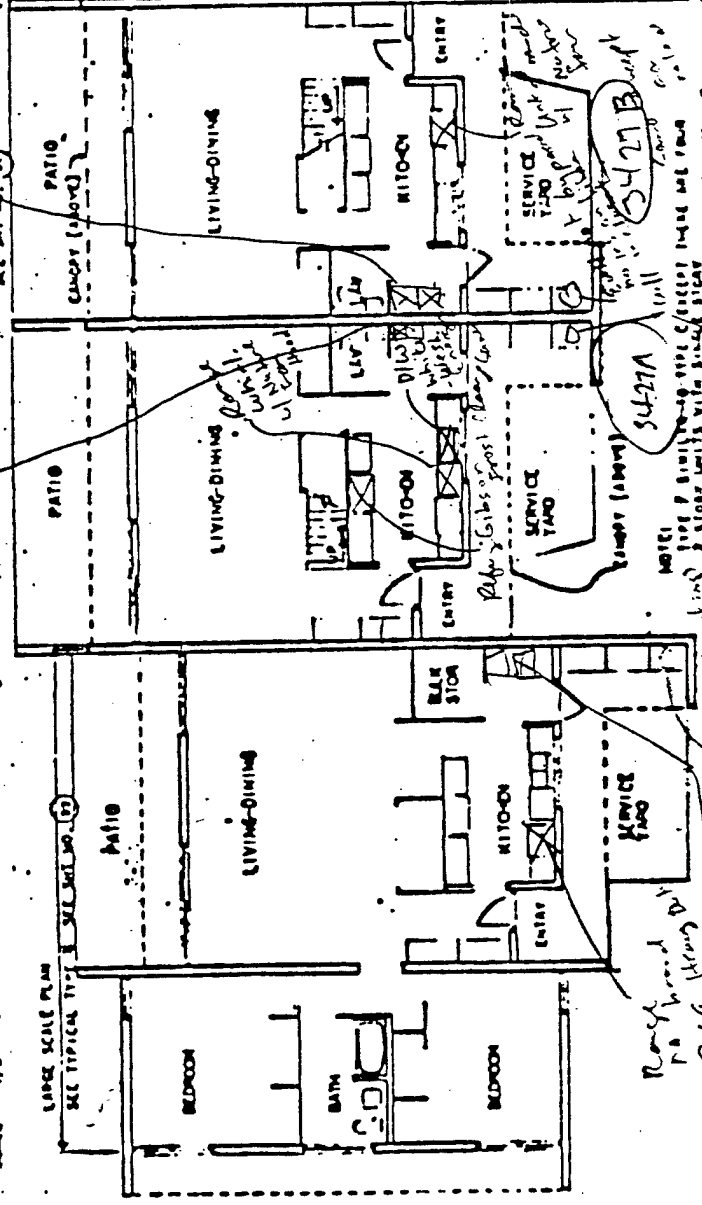
SEE TYPICAL TYPE 3  
 SEE DETAIL 3

SEE TYPICAL TYPE 3  
 SEE DETAIL 3

SEE TYPICAL TYPE 3  
 SEE DETAIL 3

SEE TYPICAL TYPE 3  
 SEE DETAIL 3

SEE TYPICAL TYPE 3  
 SEE DETAIL 3



FIRST FLOOR PLAN  
 SCALE 1/8" = 1'-0"

STN ABOUT CENTERLINE 2  
 SEE TYPICAL TYPE 3  
 SEE DETAIL 3

STN ABOUT CENTERLINE 2  
 SEE TYPICAL TYPE 3  
 SEE DETAIL 3

STN ABOUT CENTERLINE 2  
 SEE TYPICAL TYPE 3  
 SEE DETAIL 3

STN ABOUT CENTERLINE 2  
 SEE TYPICAL TYPE 3  
 SEE DETAIL 3

STN ABOUT CENTERLINE 2  
 SEE TYPICAL TYPE 3  
 SEE DETAIL 3

BUILDING NUMBERS

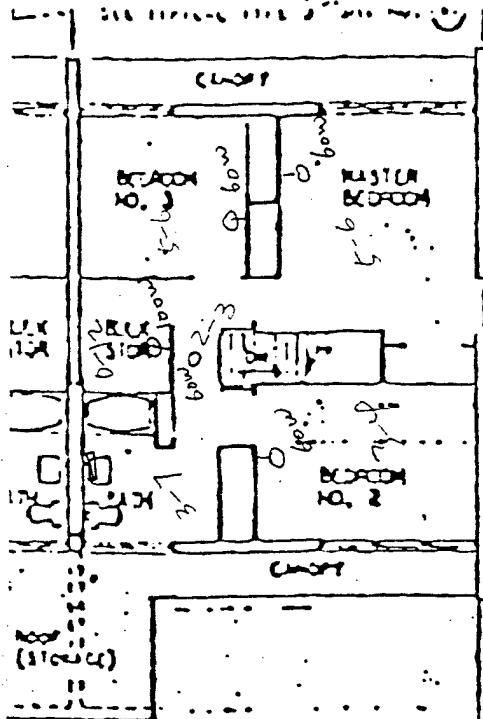
|          |      |      |      |      |      |      |      |      |      |
|----------|------|------|------|------|------|------|------|------|------|
| AREA E-1 | 3434 | 3435 | 3436 | 3437 | 3438 | 3439 | 3440 | 3441 | 3442 |
|          | 3443 | 3444 | 3445 | 3446 | 3447 | 3448 | 3449 | 3450 | 3451 |
|          | 3452 | 3453 | 3454 | 3455 | 3456 | 3457 | 3458 | 3459 | 3460 |
|          | 3461 | 3462 | 3463 | 3464 | 3465 | 3466 | 3467 | 3468 | 3469 |
|          | 3470 | 3471 | 3472 | 3473 | 3474 | 3475 | 3476 | 3477 | 3478 |
|          | 3479 | 3480 | 3481 | 3482 | 3483 | 3484 | 3485 | 3486 | 3487 |
|          | 3488 | 3489 | 3490 | 3491 | 3492 | 3493 | 3494 | 3495 | 3496 |
|          | 3497 | 3498 | 3499 | 3500 | 3501 | 3502 | 3503 | 3504 | 3505 |
|          | 3506 | 3507 | 3508 | 3509 | 3510 | 3511 | 3512 | 3513 | 3514 |
|          | 3515 | 3516 | 3517 | 3518 | 3519 | 3520 | 3521 | 3522 | 3523 |
|          | 3524 | 3525 | 3526 | 3527 | 3528 | 3529 | 3530 | 3531 | 3532 |
|          | 3533 | 3534 | 3535 | 3536 | 3537 | 3538 | 3539 | 3540 | 3541 |
|          | 3542 | 3543 | 3544 | 3545 | 3546 | 3547 | 3548 | 3549 | 3550 |
|          | 3551 | 3552 | 3553 | 3554 | 3555 | 3556 | 3557 | 3558 | 3559 |
|          | 3560 | 3561 | 3562 | 3563 | 3564 | 3565 | 3566 | 3567 | 3568 |
|          | 3569 | 3570 | 3571 | 3572 | 3573 | 3574 | 3575 | 3576 | 3577 |
|          | 3578 | 3579 | 3580 | 3581 | 3582 | 3583 | 3584 | 3585 | 3586 |
|          | 3587 | 3588 | 3589 | 3590 | 3591 | 3592 | 3593 | 3594 | 3595 |
|          | 3596 | 3597 | 3598 | 3599 | 3600 | 3601 | 3602 | 3603 | 3604 |
|          | 3605 | 3606 | 3607 | 3608 | 3609 | 3610 | 3611 | 3612 | 3613 |
|          | 3614 | 3615 | 3616 | 3617 | 3618 | 3619 | 3620 | 3621 | 3622 |
|          | 3623 | 3624 | 3625 | 3626 | 3627 | 3628 | 3629 | 3630 | 3631 |
|          | 3632 | 3633 | 3634 | 3635 | 3636 | 3637 | 3638 | 3639 | 3640 |
|          | 3641 | 3642 | 3643 | 3644 | 3645 | 3646 | 3647 | 3648 | 3649 |
|          | 3650 | 3651 | 3652 | 3653 | 3654 | 3655 | 3656 | 3657 | 3658 |
|          | 3659 | 3660 | 3661 | 3662 | 3663 | 3664 | 3665 | 3666 | 3667 |
|          | 3668 | 3669 | 3670 | 3671 | 3672 | 3673 | 3674 | 3675 | 3676 |
|          | 3677 | 3678 | 3679 | 3680 | 3681 | 3682 | 3683 | 3684 | 3685 |
|          | 3686 | 3687 | 3688 | 3689 | 3690 | 3691 | 3692 | 3693 | 3694 |
|          | 3695 | 3696 | 3697 | 3698 | 3699 | 3700 | 3701 | 3702 | 3703 |
|          | 3704 | 3705 | 3706 | 3707 | 3708 | 3709 | 3710 | 3711 | 3712 |
|          | 3713 | 3714 | 3715 | 3716 | 3717 | 3718 | 3719 | 3720 | 3721 |
|          | 3722 | 3723 | 3724 | 3725 | 3726 | 3727 | 3728 | 3729 | 3730 |
|          | 3731 | 3732 | 3733 | 3734 | 3735 | 3736 | 3737 | 3738 | 3739 |
|          | 3740 | 3741 | 3742 | 3743 | 3744 | 3745 | 3746 | 3747 | 3748 |
|          | 3749 | 3750 | 3751 | 3752 | 3753 | 3754 | 3755 | 3756 | 3757 |
|          | 3758 | 3759 | 3760 | 3761 | 3762 | 3763 | 3764 | 3765 | 3766 |
|          | 3767 | 3768 | 3769 | 3770 | 3771 | 3772 | 3773 | 3774 | 3775 |
|          | 3776 | 3777 | 3778 | 3779 | 3780 | 3781 | 3782 | 3783 | 3784 |
|          | 3785 | 3786 | 3787 | 3788 | 3789 | 3790 | 3791 | 3792 | 3793 |
|          | 3794 | 3795 | 3796 | 3797 | 3798 | 3799 | 3800 | 3801 | 3802 |
|          | 3803 | 3804 | 3805 | 3806 | 3807 | 3808 | 3809 | 3810 | 3811 |
|          | 3812 | 3813 | 3814 | 3815 | 3816 | 3817 | 3818 | 3819 | 3820 |
|          | 3821 | 3822 | 3823 | 3824 | 3825 | 3826 | 3827 | 3828 | 3829 |
|          | 3830 | 3831 | 3832 | 3833 | 3834 | 3835 | 3836 | 3837 | 3838 |
|          | 3839 | 3840 | 3841 | 3842 | 3843 | 3844 | 3845 | 3846 | 3847 |
|          | 3848 | 3849 | 3850 | 3851 | 3852 | 3853 | 3854 | 3855 | 3856 |
|          | 3857 | 3858 | 3859 | 3860 | 3861 | 3862 | 3863 | 3864 | 3865 |
|          | 3866 | 3867 | 3868 | 3869 | 3870 | 3871 | 3872 | 3873 | 3874 |
|          | 3875 | 3876 | 3877 | 3878 | 3879 | 3880 | 3881 | 3882 | 3883 |
|          | 3884 | 3885 | 3886 | 3887 | 3888 | 3889 | 3890 | 3891 | 3892 |
|          | 3893 | 3894 | 3895 | 3896 | 3897 | 3898 | 3899 | 3900 | 3901 |
|          | 3902 | 3903 | 3904 | 3905 | 3906 | 3907 | 3908 | 3909 | 3910 |
|          | 3911 | 3912 | 3913 | 3914 | 3915 | 3916 | 3917 | 3918 | 3919 |
|          | 3920 | 3921 | 3922 | 3923 | 3924 | 3925 | 3926 | 3927 | 3928 |
|          | 3929 | 3930 | 3931 | 3932 | 3933 | 3934 | 3935 | 3936 | 3937 |
|          | 3938 | 3939 | 3940 | 3941 | 3942 | 3943 | 3944 | 3945 | 3946 |
|          | 3947 | 3948 | 3949 | 3950 | 3951 | 3952 | 3953 | 3954 | 3955 |
|          | 3956 | 3957 | 3958 | 3959 | 3960 | 3961 | 3962 | 3963 | 3964 |
|          | 3965 | 3966 | 3967 | 3968 | 3969 | 3970 | 3971 | 3972 | 3973 |
|          | 3974 | 3975 | 3976 | 3977 | 3978 | 3979 | 3980 | 3981 | 3982 |
|          | 3983 | 3984 | 3985 | 3986 | 3987 | 3988 | 3989 | 3990 | 3991 |
|          | 3992 | 3993 | 3994 | 3995 | 3996 | 3997 | 3998 | 3999 | 4000 |

SEE SITE PLAN SHEET 17 FOR LOCATION

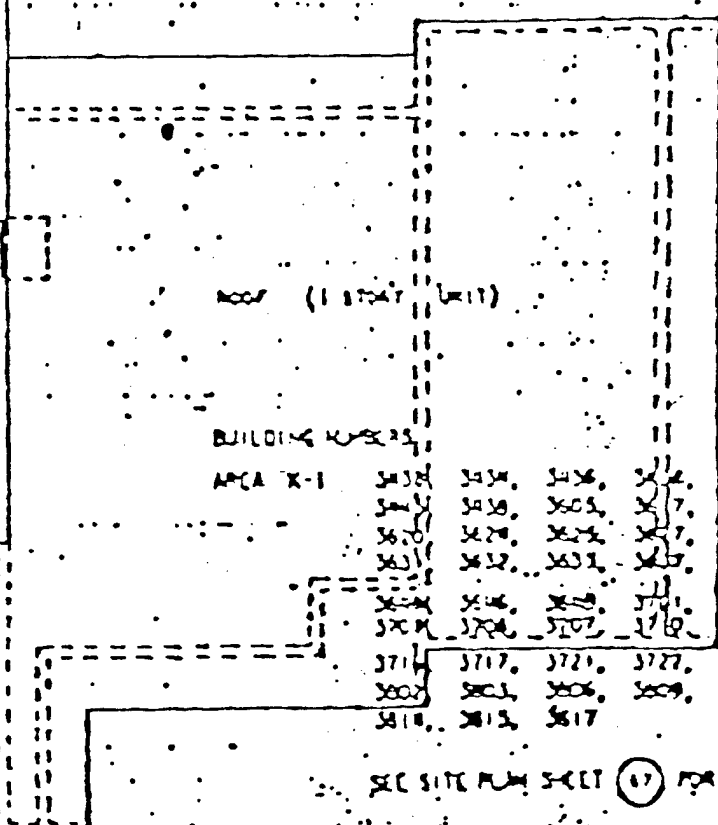
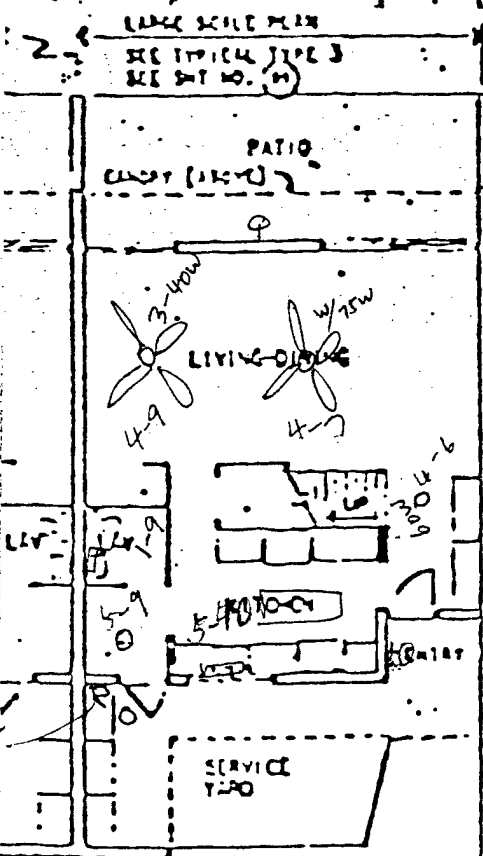
TYPE 57-V  
 57-IV

REVISIONS

|   |            |    |    |    |    |
|---|------------|----|----|----|----|
| SUCCESSIVE DATA FOR AIR CONDITIONING PROJECTS |            |    |    |    |    |
| CAPITAN HOUSING SCHEDULE 1957                 | AREA E-1   |    |    |    |    |
| FIRST FLOOR PLAN                              | TYPE E     |    |    |    |    |
| SCHOOL BUILDINGS                              | AREA, NAME |    |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PACIFIC BRANCH  |            |    |    |    |    |
| COMPS OF ENGINEERS                            |            |    |    |    |    |
| MOBILE, ALABAMA                               |            |    |    |    |    |
| LOC. CODE 1119                                | 25         | 23 | 07 | 07 | 17 |



3427 B

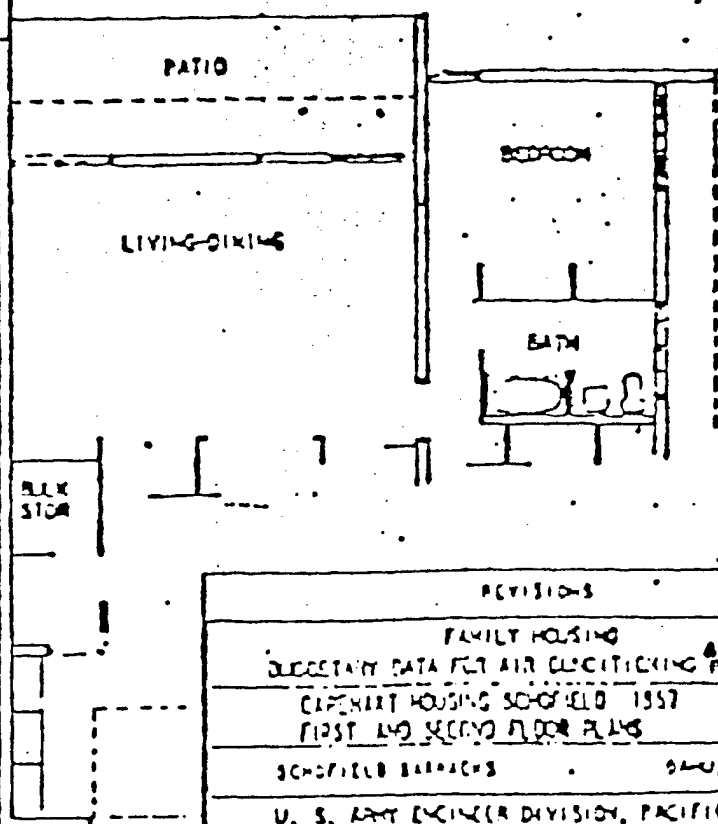


BUILDING K-1

|          |      |      |      |      |      |
|----------|------|------|------|------|------|
| AREA K-1 | 3438 | 3439 | 3440 | 3441 | 3442 |
|          | 3443 | 3444 | 3445 | 3446 | 3447 |
|          | 3448 | 3449 | 3450 | 3451 | 3452 |
|          | 3453 | 3454 | 3455 | 3456 | 3457 |
|          | 3458 | 3459 | 3460 | 3461 | 3462 |
|          | 3463 | 3464 | 3465 | 3466 | 3467 |
|          | 3468 | 3469 | 3470 | 3471 | 3472 |
|          | 3473 | 3474 | 3475 | 3476 | 3477 |
|          | 3478 | 3479 | 3480 | 3481 | 3482 |
|          | 3483 | 3484 | 3485 | 3486 | 3487 |
|          | 3488 | 3489 | 3490 | 3491 | 3492 |
|          | 3493 | 3494 | 3495 | 3496 | 3497 |
|          | 3498 | 3499 | 3500 | 3501 | 3502 |

SEE SITE PLAN SHEET (17) FOR LOCATION

TYPE 57-V  
57-IV



| REVISIONS                                    |             |
|--|-------------|
| FAMILY HOUSING                               |             |
| SECRETARY DATA FOR AIR CONDITIONING PROJECTS |             |
| CAFETERIA HOUSING SCHOFIELD 1957             | AREA K-1    |
| FIRST AND SECOND FLOOR PLANS                 | TYPE C      |
| SCHOFIELD BARRACKS                           | DAW, HARRIS |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |             |

TYPE C EXCEPT THERE ARE FOUR

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3432

Building Type: 57-IV

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*Same as 97-III*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

same as 57. III

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- (4)

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

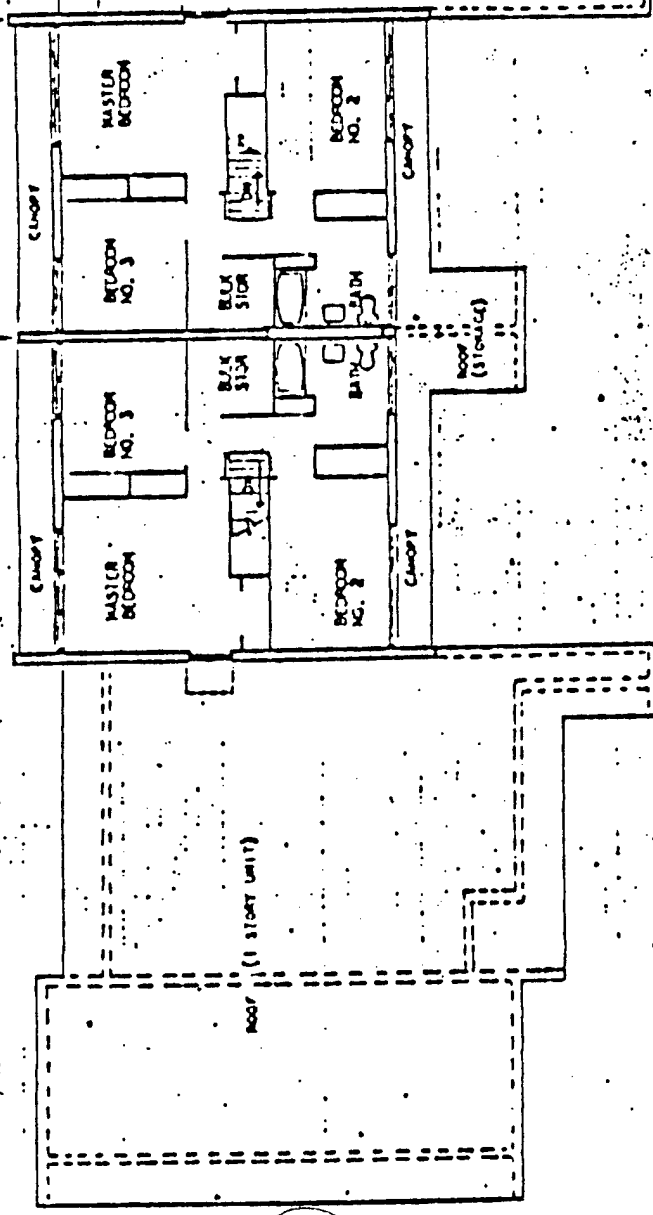
### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| KIT. SK | 12/105 | 116 F       |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |



(3432 D) 3432A

SEE SECTION 3432A



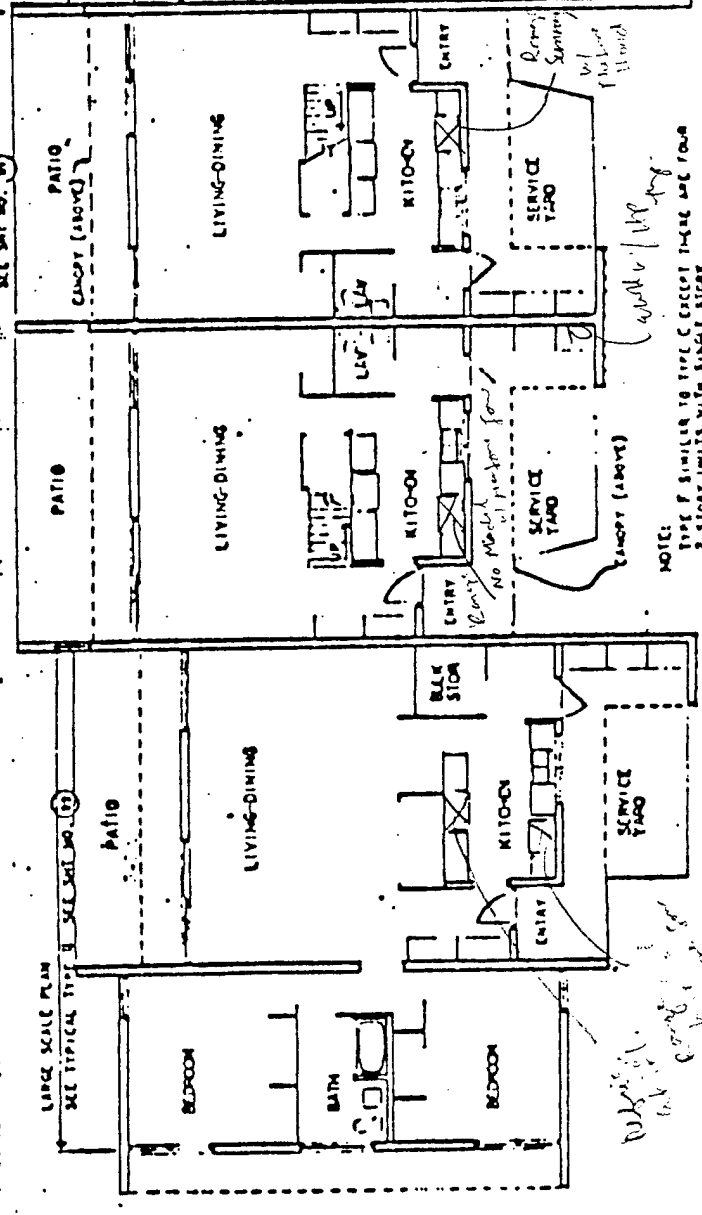
SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

STN ABOUT CENTERLINE 2

LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SEE DET NO. 6

SEE SITE PLAN SHEET 17 FOR LOCATION

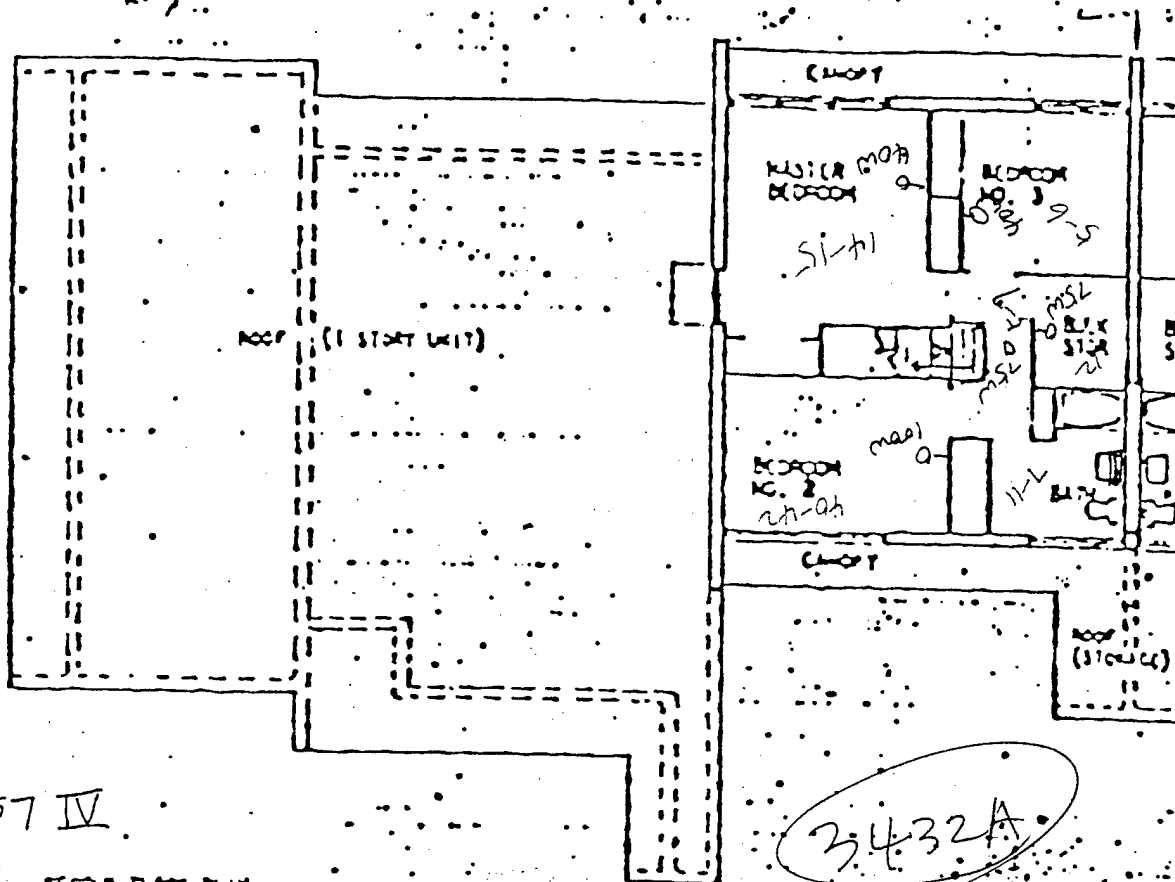
TYPE 57-V  
57-IV



FIRST FLOOR PLAN

NOTE:  
TYPE F SIMILAR TO TYPE C EXCEPT THERE ARE FOUR  
2 STORY UNITS WITH SINGLE STORY  
UNITS AT CLOS

| REVISIONS                                   |    |    |    |
|---|----|----|----|
| RECEIPT DATA FOR AIR CONDITIONING PROJECTS  |    |    |    |
| CAMPBELL HOUSING SCHEDULE 1957 AREA E-1     |    |    |    |
| FIRST AND SECOND FLOOR PLANS TYPE C         |    |    |    |
| SCHOOL BARRACKS                             |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN |    |    |    |
| GROUPS OF ENGINEERS                         |    |    |    |
| MOORE, HAWAII                               |    |    |    |
| NO. 9294                                    | 25 | 23 | 07 |
| DATE  | 19 |    |    |



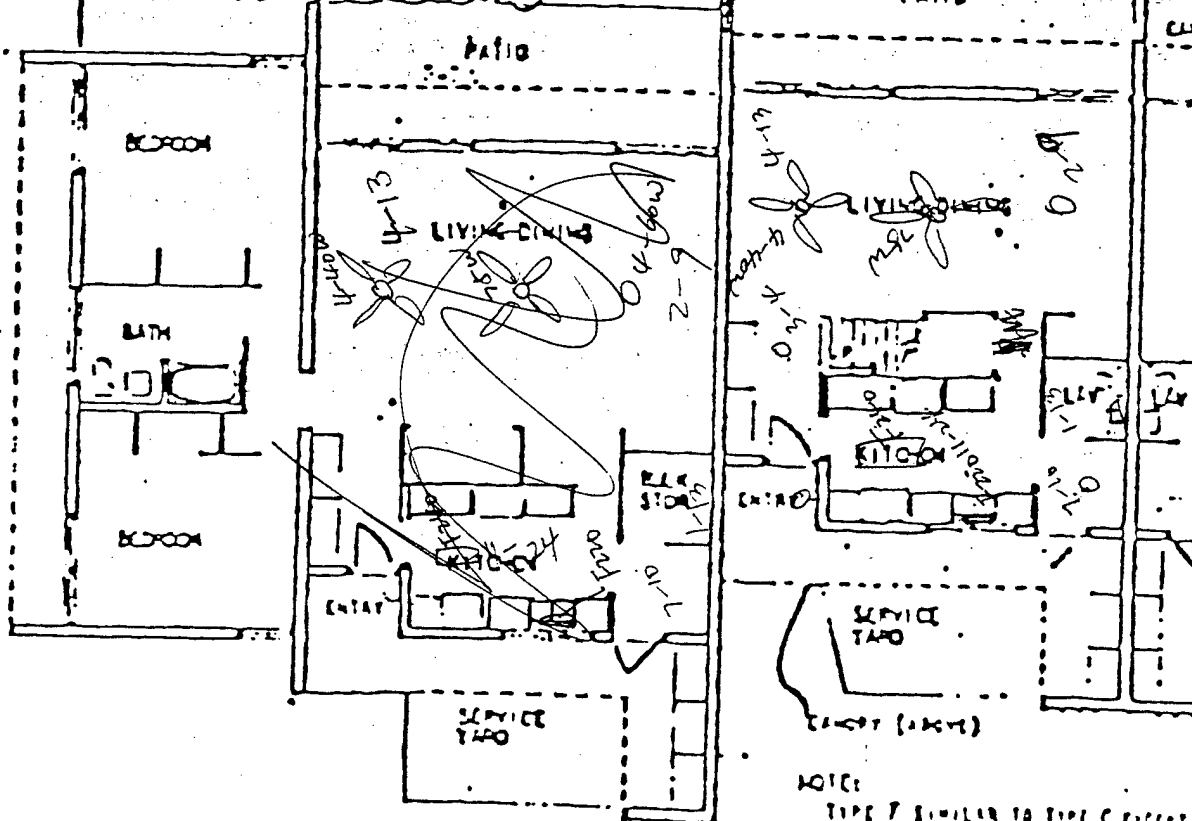
TYPE 57 V & 57 IV

SECOND FLOOR PLAN

SCALE 1/8" = 1'-0"

LARGE SCALE PLAN

SEE TYPICAL TYPE 3 SEE SET NO. 13



NOTE

TYPE 7 SIMILAR TO TYPE C EXCEPT  
2 STORY UNITS WITH SINGLE STORY

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3432

Building Type: 57 - IV

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 2

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 3

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Sum of 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

*same as 57-II*

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit Sk  | 22/105 | 110         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

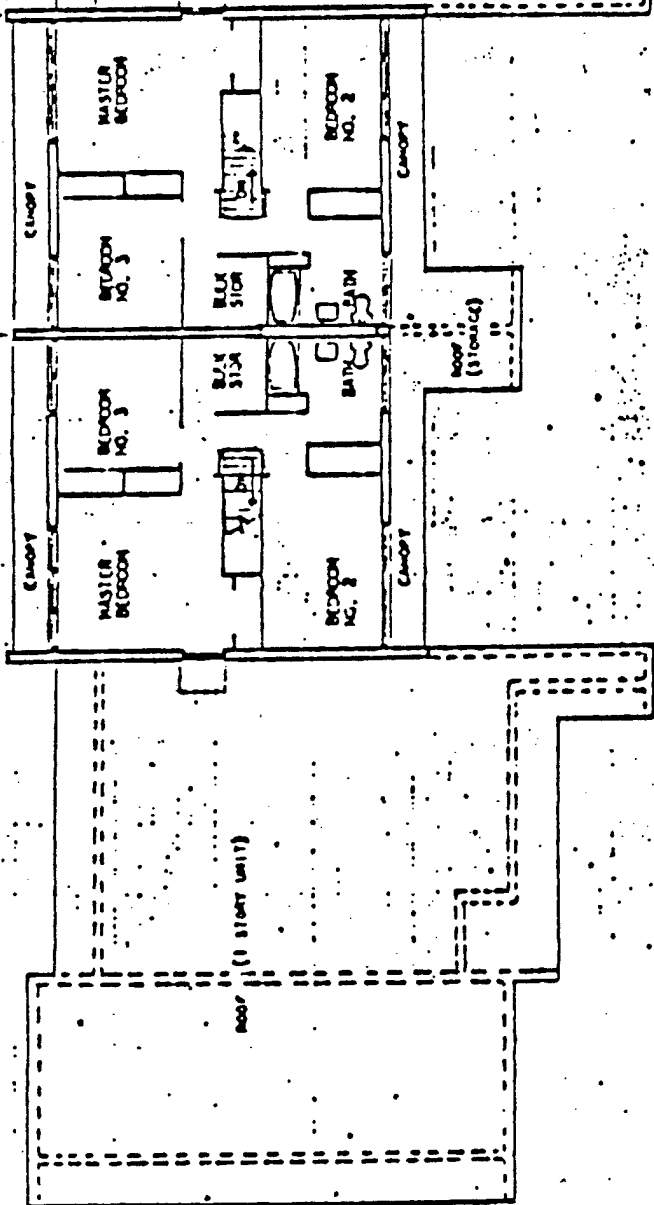
3432A

212-V

Model

212-V

4932  
6  
Grand  
Catered



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

SEE ABOUT CATCHING 2  
SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

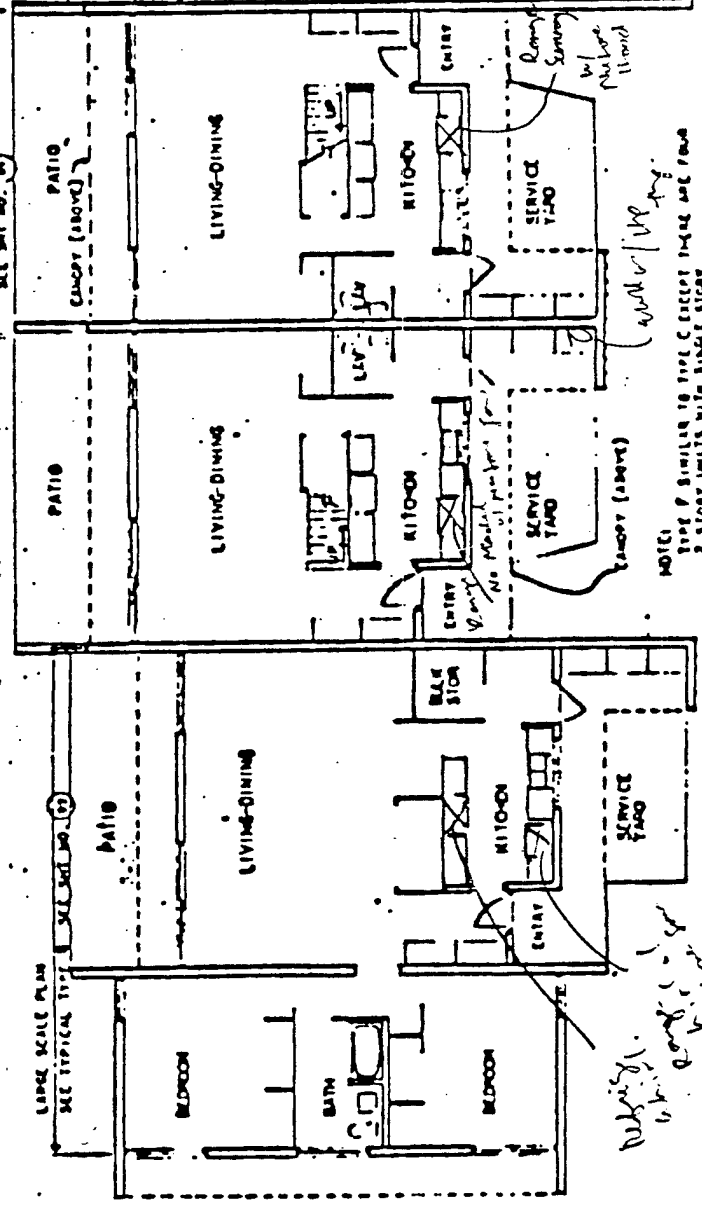
SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

SEE SITE PLAN SHEET 67 FOR LOCATION

TYPE 57-V  
& 57-IV



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

SEE ABOUT CATCHING 2  
SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

SEE TYPICAL TYPE 3  
SEE UNIT NO. 67

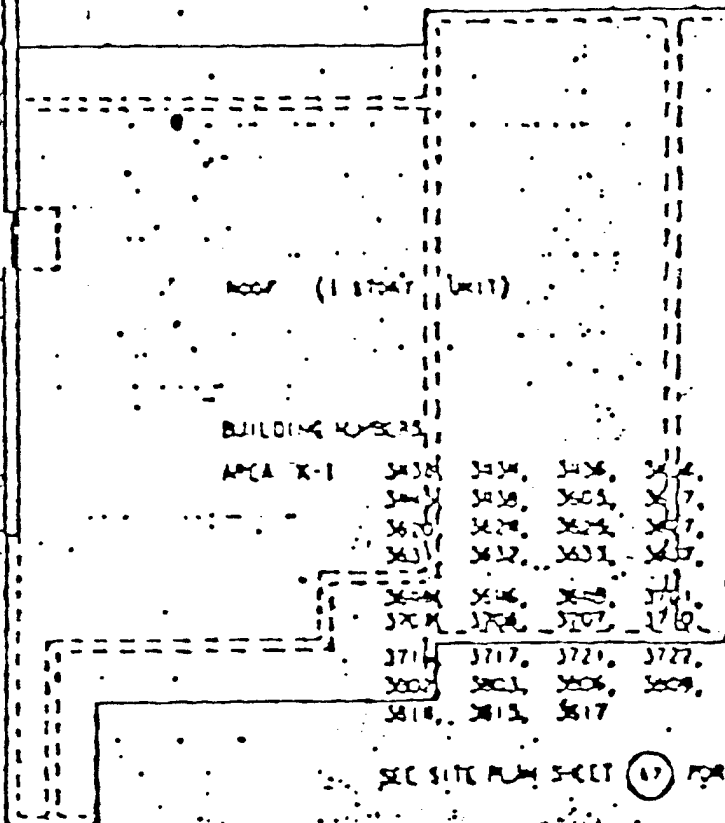
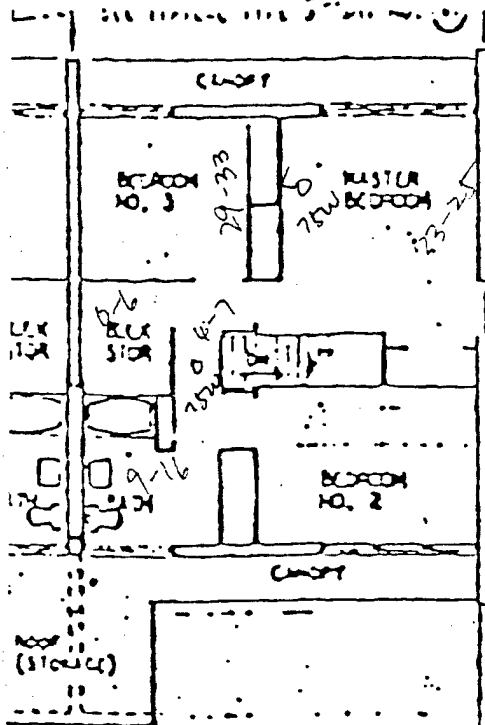
| REVISIONS |           |
|-----------|-----------|
| 1         | REVISIONS |
| 2         | REVISIONS |
| 3         | REVISIONS |
| 4         | REVISIONS |
| 5         | REVISIONS |
| 6         | REVISIONS |
| 7         | REVISIONS |
| 8         | REVISIONS |
| 9         | REVISIONS |
| 10        | REVISIONS |
| 11        | REVISIONS |
| 12        | REVISIONS |
| 13        | REVISIONS |
| 14        | REVISIONS |
| 15        | REVISIONS |
| 16        | REVISIONS |
| 17        | REVISIONS |

LOC. CODE 9199 25 23 07 30-1 17

LOC. CODE 9199 25 23 07 30-1 17

LOC. CODE 9199 25 23 07 30-1 17

LOC. CODE 9199 25 23 07 30-1 17





Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3433 B

Building Type: 57 - IV

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 2

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

same as 57-III

## 2.0 ARCHITECTURAL

### Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as 57-III

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- (4)

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

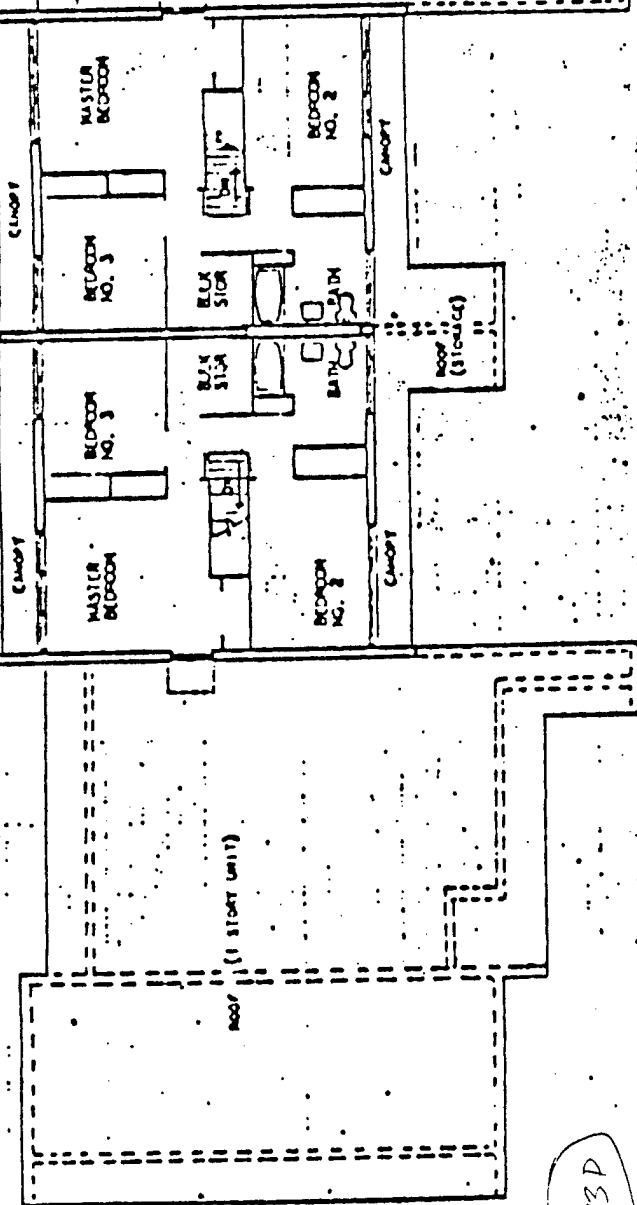
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture       | Flow                 | Water Temp. | Remarks |
|---------------|----------------------|-------------|---------|
| Kit sk        | 2 $\frac{1}{2}$ /10s | 130         |         |
| Bathroom Shwr | 1 $\frac{1}{2}$ /10s | 120         |         |
|               |                      |             |         |
|               |                      |             |         |
|               |                      |             |         |
|               |                      |             |         |
|               |                      |             |         |
|               |                      |             |         |

34333b  
12.00 ft  
9.00 ft  
6.00 ft



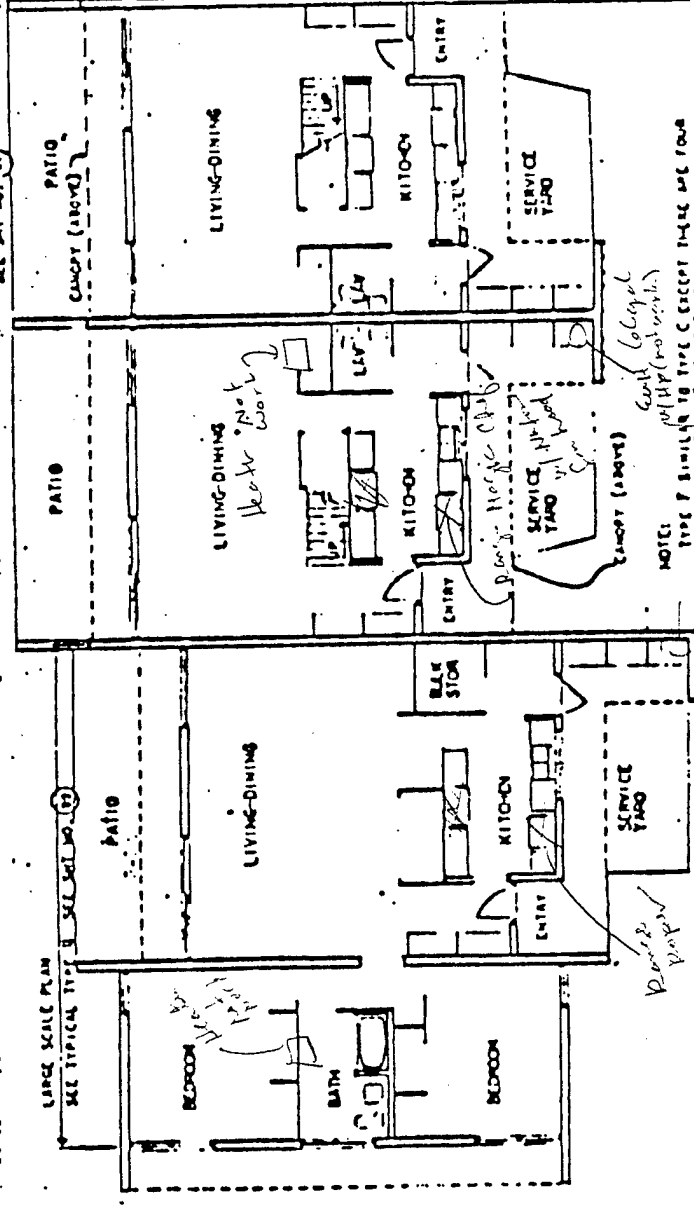
SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

34333D

SEE ABOUT CANTY LINE 2 - LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SEE SHEET NO. 10

SEE SITE PLAN SHEET 17 FOR LOCATION

Type 57-V  
57-IV

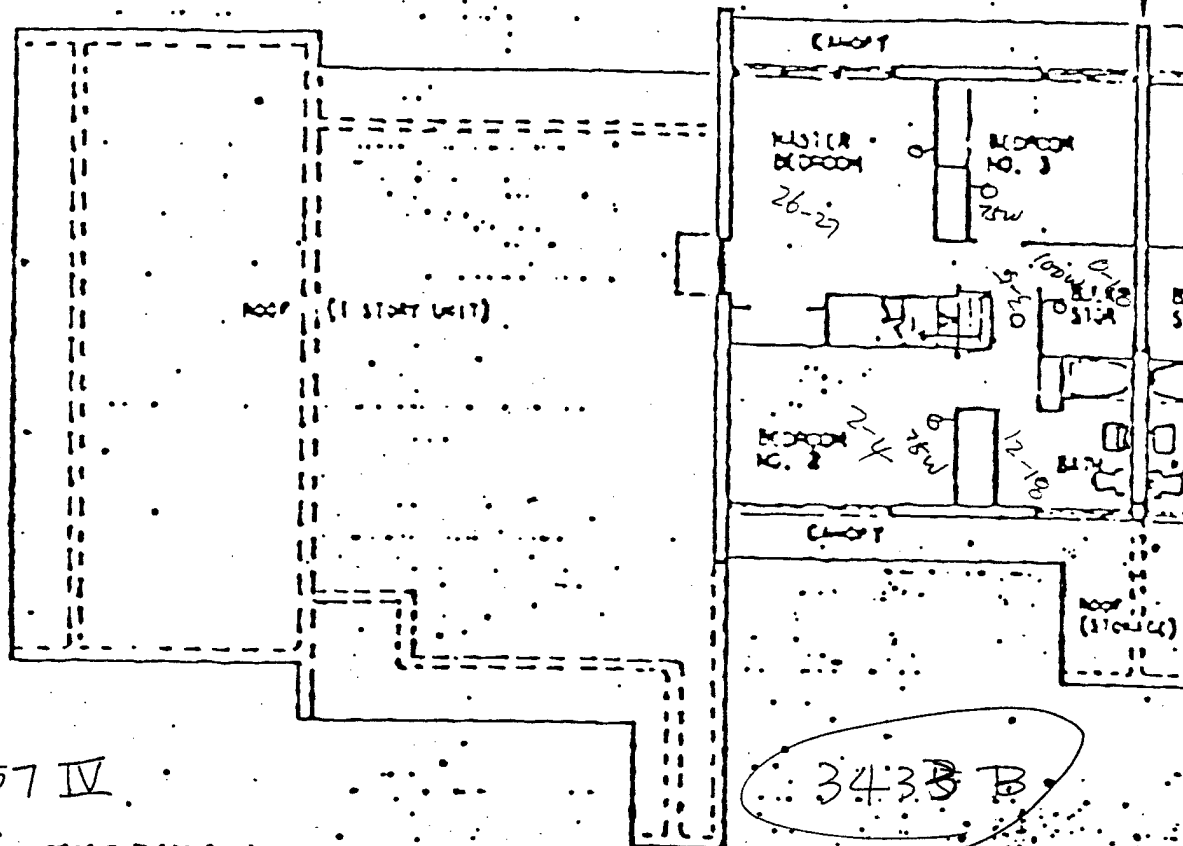


FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

| REVISIONS                                    |    |    |    |
|--|----|----|----|
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS |    |    |    |
| CAPITOL HOURS SCHOOL 1957 AREA C-1           |    |    |    |
| FIRST AND SECOND FLOOR PLANS TYPE C          |    |    |    |
| SCHOOL BUILDINGS                             |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |    |    |    |
| GROUP OF ENGINEERS                           |    |    |    |
| MOORE, HANBELL                               |    |    |    |
| NO. 9294                                     | 25 | 07 | 17 |

NOTE:  
TYPE P SIMILAR TO TYPE C EXCEPT THERE ARE FOUR  
2 STORY UNITS WITH SINGLE STAIR  
UNITS AT ENDS

FIRST FLOOR PLAN



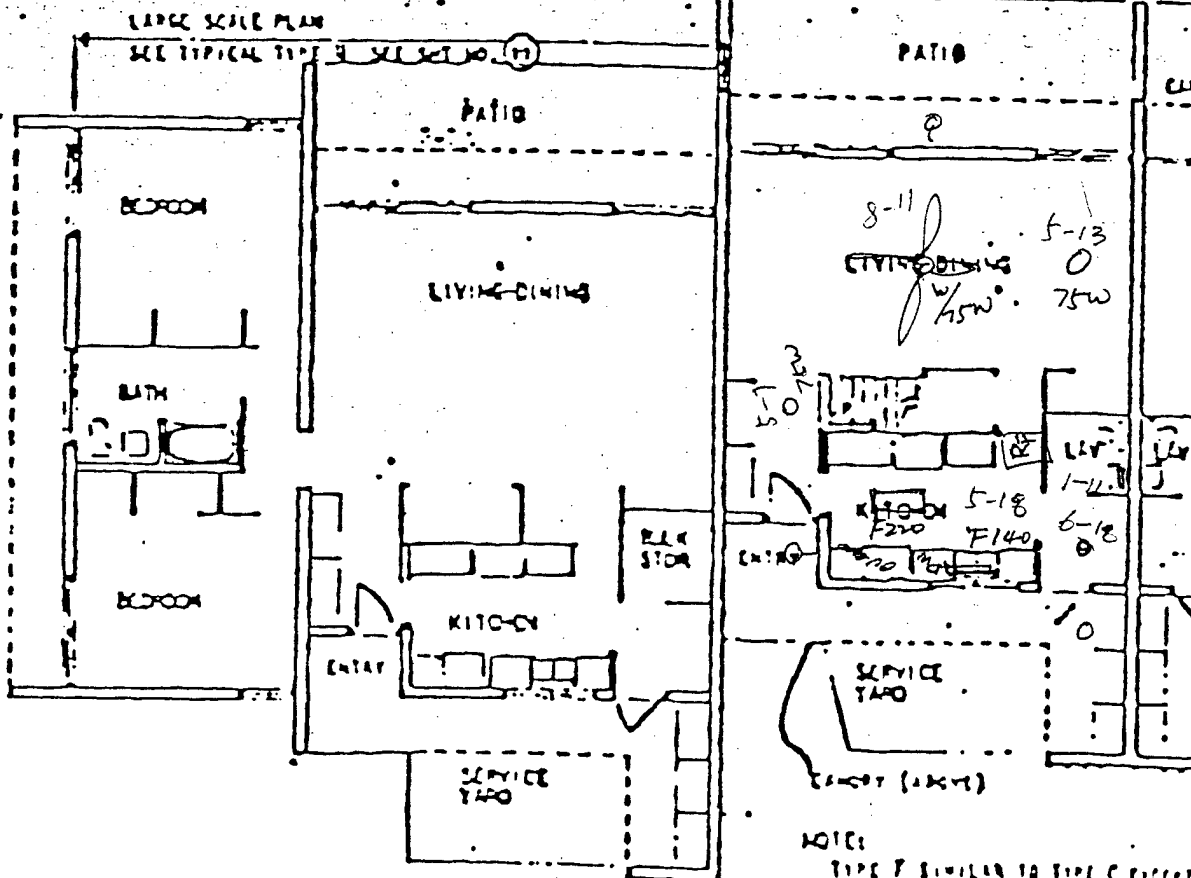
TYPE 57 IV & 57 IV

SECOND FLOOR PLAN

SCALE 1/8" = 1'-0"

343B B

SEE ABOVE CENTERLINE 2



NOTE:

TYPE F SIMILAR TO TYPE C EXCEPT 2 STORY UNITS WITH SINGLE STORY

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3436

Building Type: 57-IV

Apartment: C

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



same as 57-III

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- (4)

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture       | Flow   | Water Temp. | Remarks |
|---------------|--------|-------------|---------|
| Kit Sk        | 12/10s | 116         |         |
| Bathroom Shwr | 12/10s | 116         |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |
|               |        |             |         |

3436C

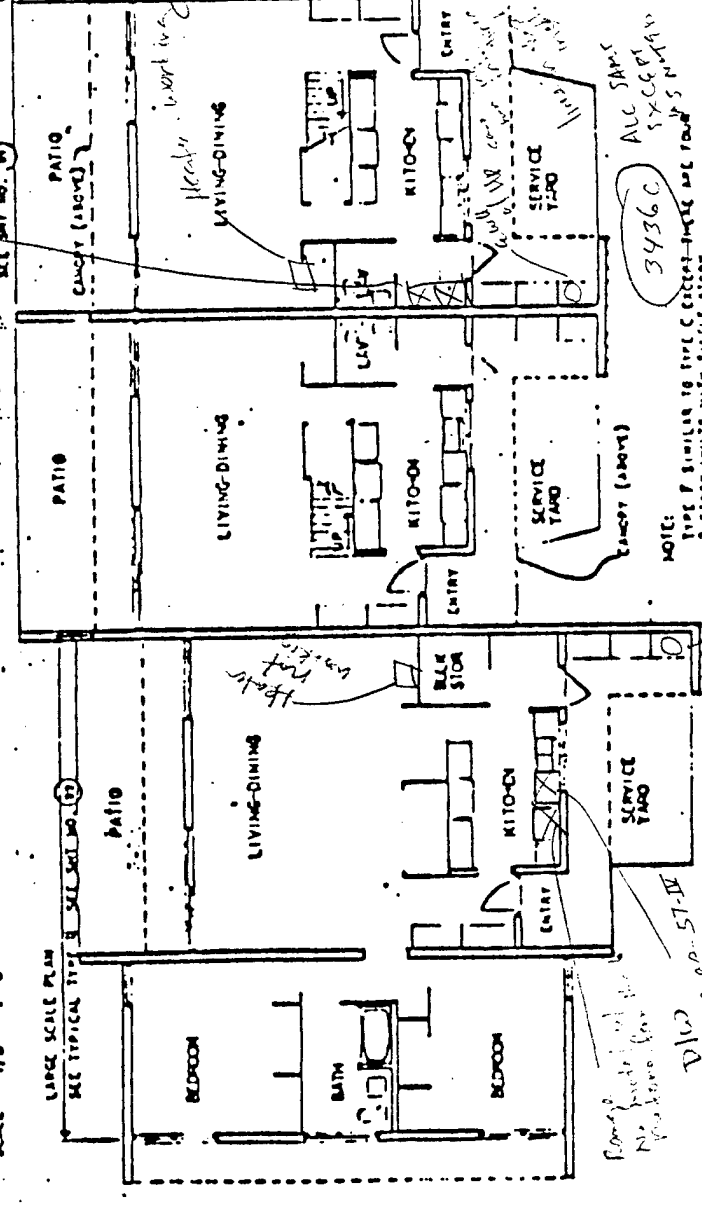
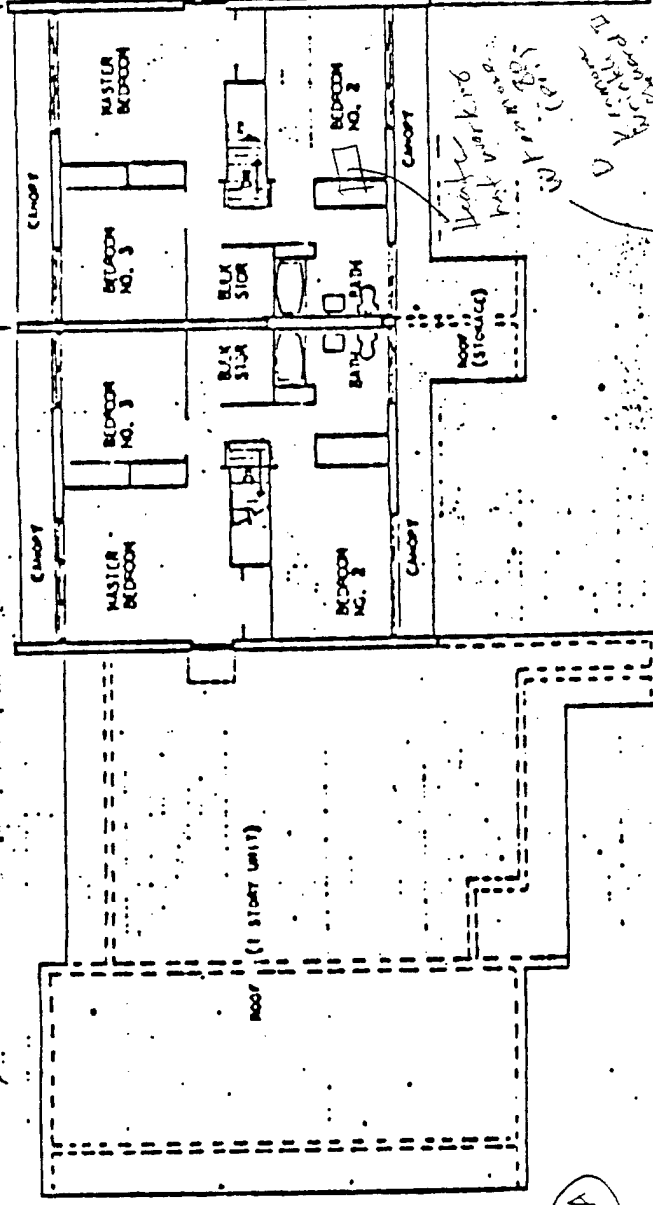
SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

SYN ABOUT CENTERLINE 2  
SEE TYPICAL FLOOR 3  
SEE UNIT NO. 10

LARGE SCALE PLAN  
SEE TYPICAL FLOOR 3  
SEE UNIT NO. 10

SEE SITE PLAN SHEET 47 FOR LOCATION

TYPE 57-V  
57-IV



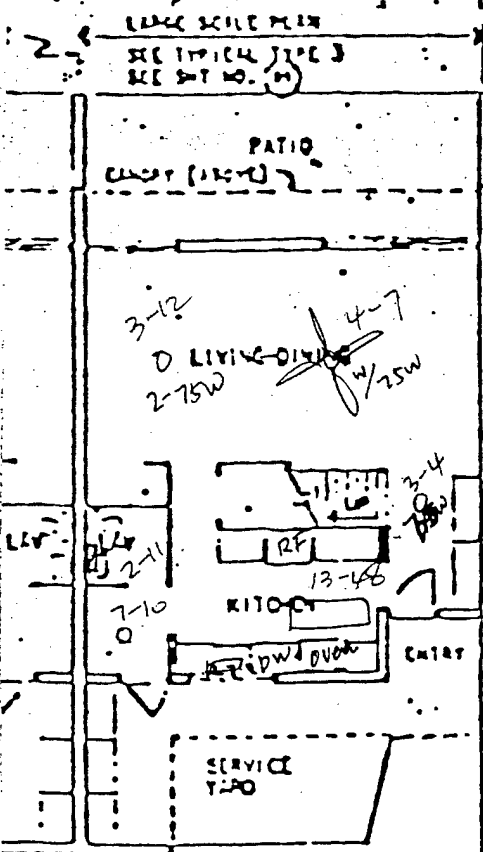
FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

| REVISIONS                                     |    |    |    |
|---|----|----|----|
| FAMILY HOUSING                                |    |    |    |
| SUGGESTION DATA FOR AIR CONDITIONING PROJECTS |    |    |    |
| CLIMATE CONTROL SCHEDULE 1957 AREA 1-1        |    |    |    |
| FIRST AND SECOND FLOOR PLANS TYPE C           |    |    |    |
| SCHOOL BUILDINGS                              |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN   |    |    |    |
| HEADQUARTERS OF ENGINEERS                     |    |    |    |
| HONOLULU, HAWAII                              |    |    |    |
| LOC. CODE 9296                                | 25 | 23 | 07 |
|   |    |    | 17 |

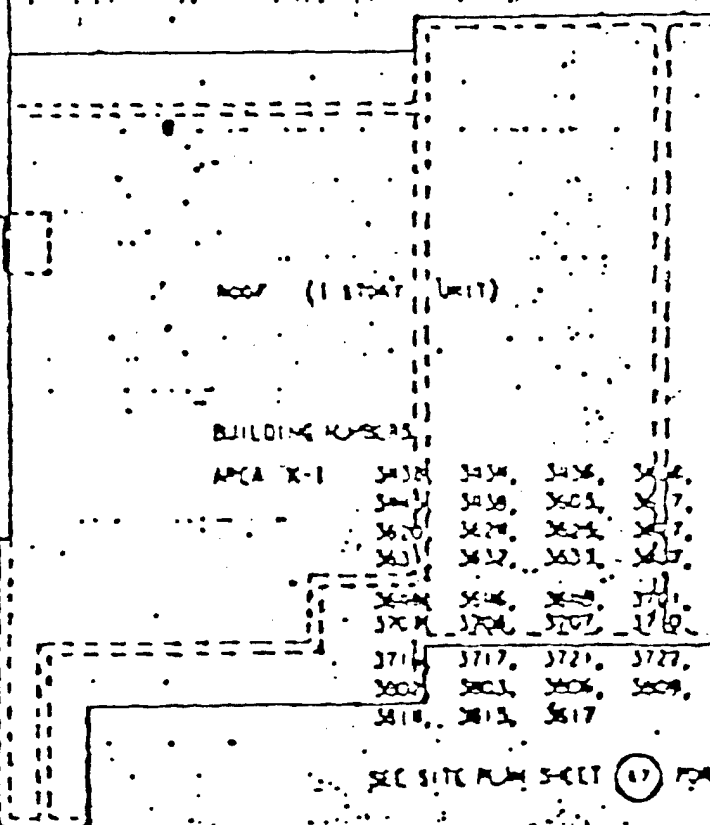
3436C  
ALL SANS  
EXCEPT  
TYPE F SIMILAR TO TYPE C EXCEPT THERE ARE TWO 5' PLANS  
2 STORY UNITS WITH SINGLE STORY  
UNITS AT EACH

Plat Marking

3436 C

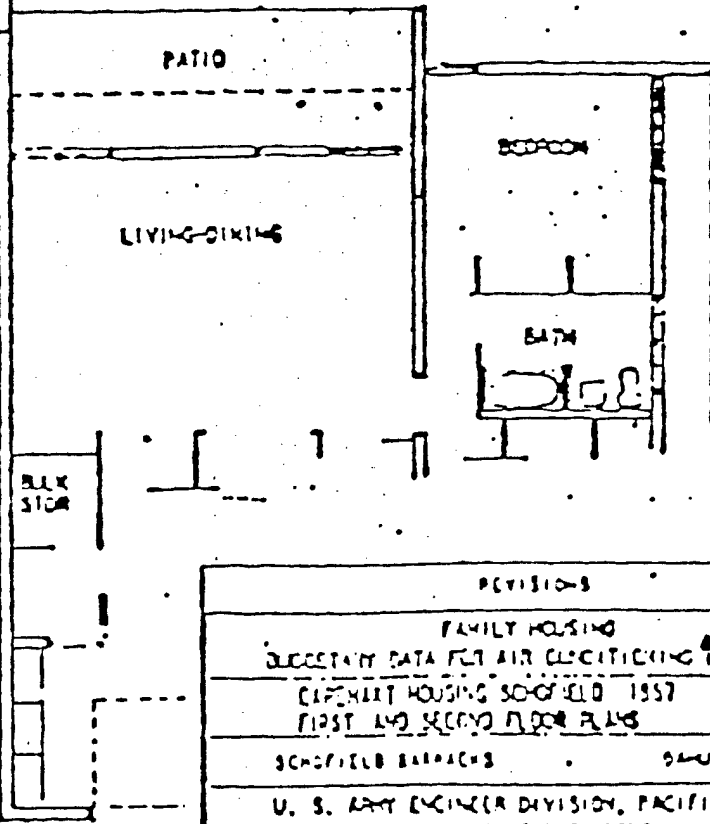


THE CORRESPONDING PAGE

[illegible]

SEE SITE PLAN SHEET (17) FOR LOCATION

Type 57-V  
57-IV



|  |            |
|--|------------|
| DIVISIONS                                    |            |
| FAMILY HOUSING                               |            |
| SUGGESTIVE DATA FOR AIR CLIMATIZING PROJECTS |            |
| CAMPBELL HOUSING SCHOOL 1957                 | AREA 8-1   |
| FIRST AND SECOND FLOOR PLANS                 | TYPE C     |
| SCHOOL BARRACKS                              | 9400, 9401 |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |            |

UNIT TYPE 57-V

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3432

Building Type: 57-V

Apartment: 4

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 6 pm on

No. of Occupants: 2

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 3

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-II

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

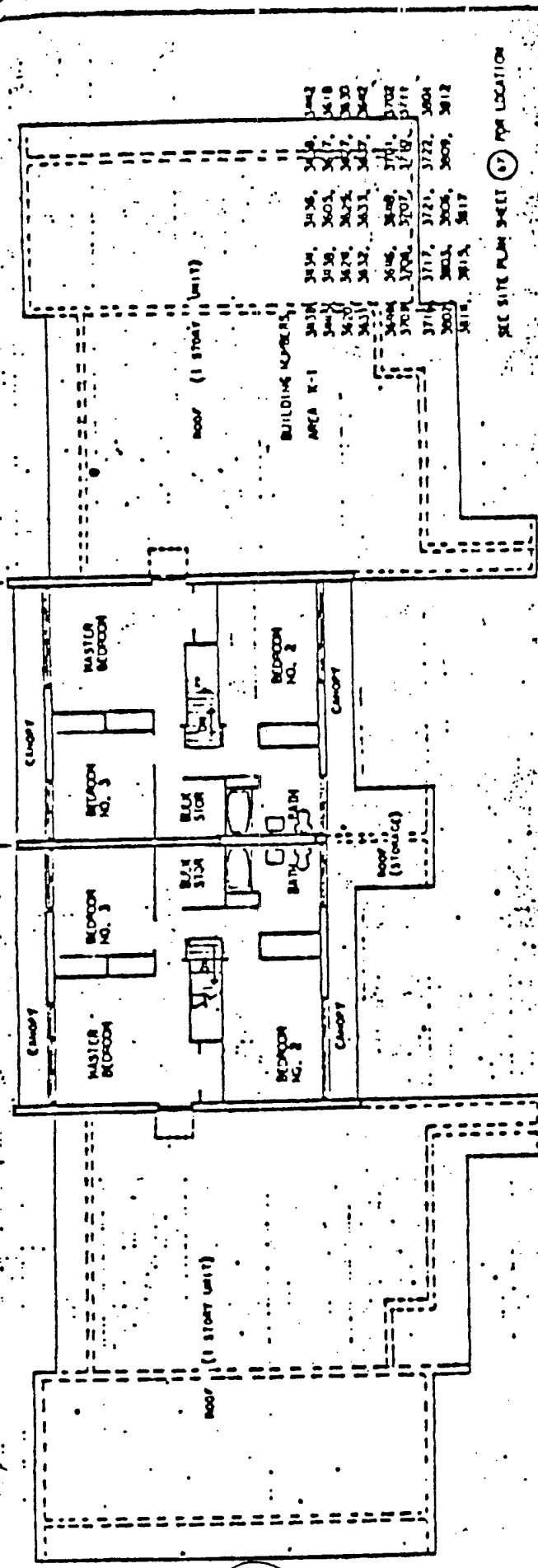
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks             |
|---------|--------|-------------|---------------------|
| Kit sk  | 12/10s | 118         | Faucet Head changed |
|         |        |             |                     |
|         |        |             |                     |
|         |        |             |                     |
|         |        |             |                     |
|         |        |             |                     |
|         |        |             |                     |
|         |        |             |                     |
|         |        |             |                     |

3432A

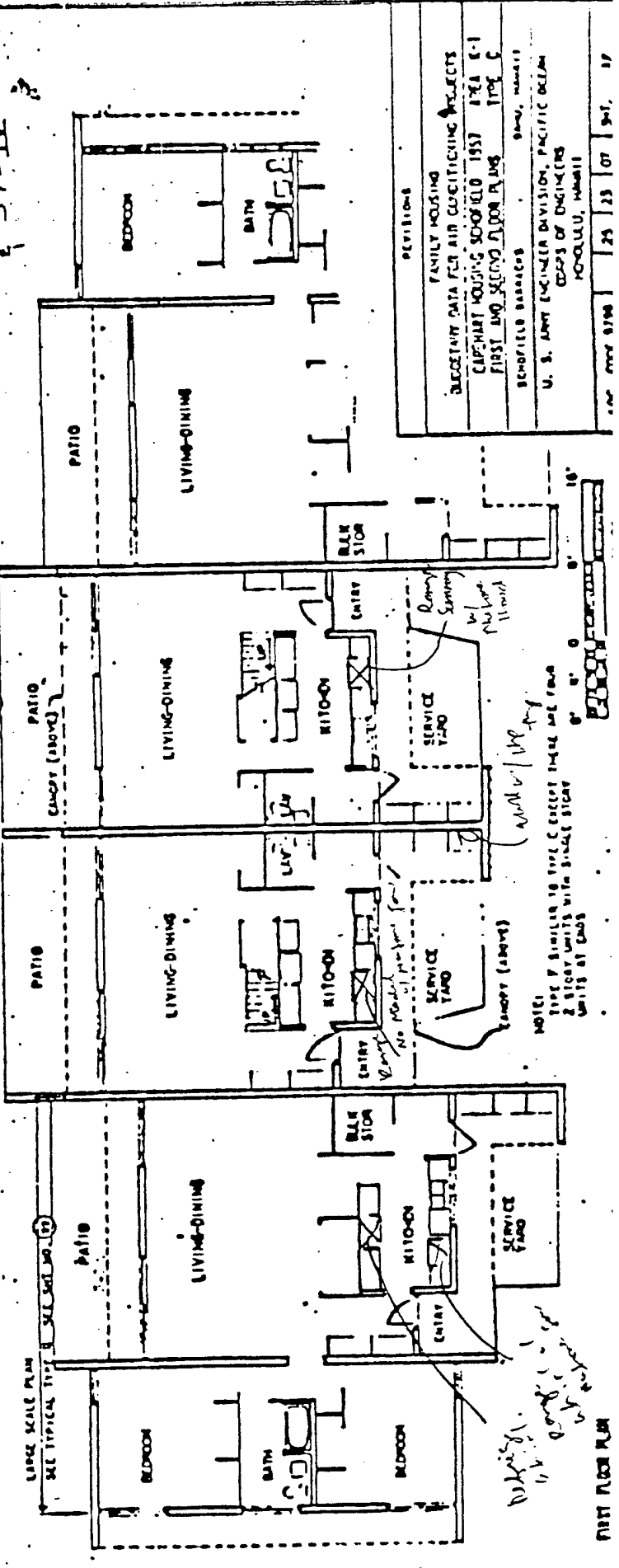


SECOND FLOOR PLAN  
SCALE 1/8" = 1'

[illegible]

SEE 1172 JULY 24-25 1967 FOR LOCATION

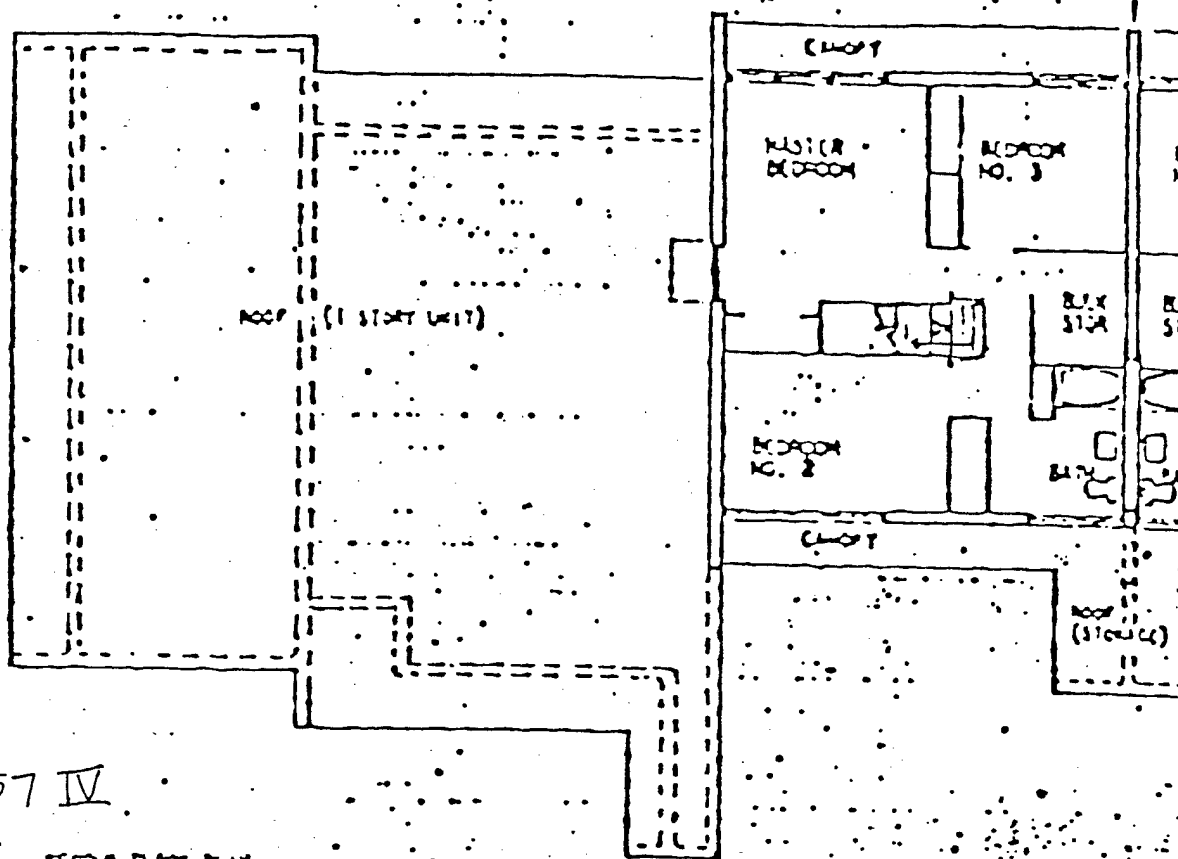
Type 57-V  
& 57-IV



הנהגת המוסדות

UNION IS STRENGTH  
2810 AVENUE 16  
APRIL 1942  
TYPE A SIMILAR TO THE OTHER TWO

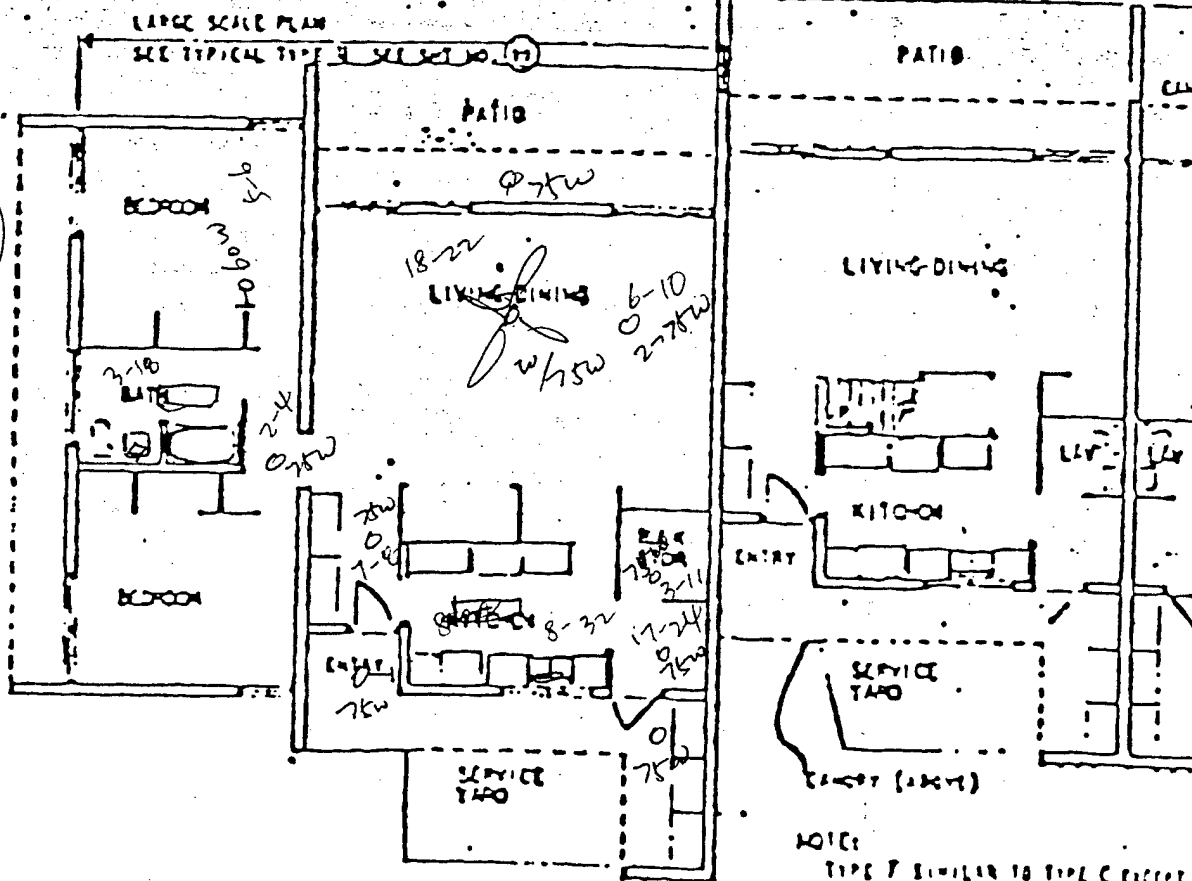
|   |                |    |               |
|---|----------------|----|---------------|
| REVISIONS   | FAMILY HOUSING |    |               |
| SUCCESSION DATA FOR AIR CURTAINING PROJECTS   |                |    |               |
| CAPTAIN HOUSING SCHEDULE 1957 AREA C-1  |                |    |               |
| FIRST AND SECOND FLOOR PLANS PAGE 6   |                |    |               |
| SCHEDULE DATES  |                |    |               |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN<br>GROUP OF ENGINEERS<br>HONOLULU, HAWAII |                |    |               |
| DATE  | NOV 1946       | 25 | 23 07 341, 17 |



TYPE 57 IV & 57 IV

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

SEE ABOUT CENTER LINE 2



NOTE:  
TYPE 57 SIMILAR TO TYPE C EXCEPT  
2 STORY UNITS WITH SINGLE STORY

3432 E  
VWVWse

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3433D

Building Type: 57-V

Apartment: D

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*same as 57-19*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:            °F  
           °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
  - 1) Storage \_\_\_\_\_
  - 2) Instantaneous \_\_\_\_\_
  - 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

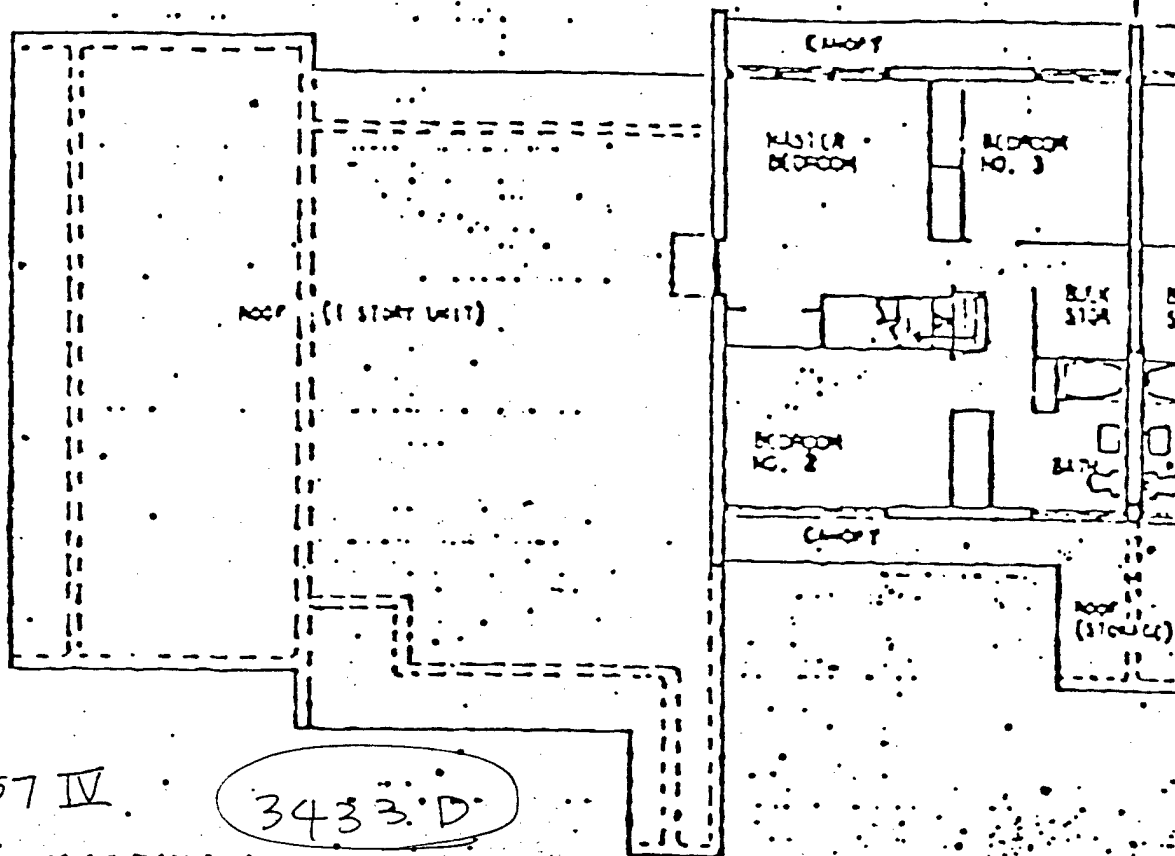
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture       | Flow     | Water Temp. | Remarks |
|---------------|----------|-------------|---------|
| Kit SK        | 1.5g/10s | 98°         |         |
| Bathroom Shwr | 3g/10s   | 98          |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |







TYPE 57 V & 57 IV

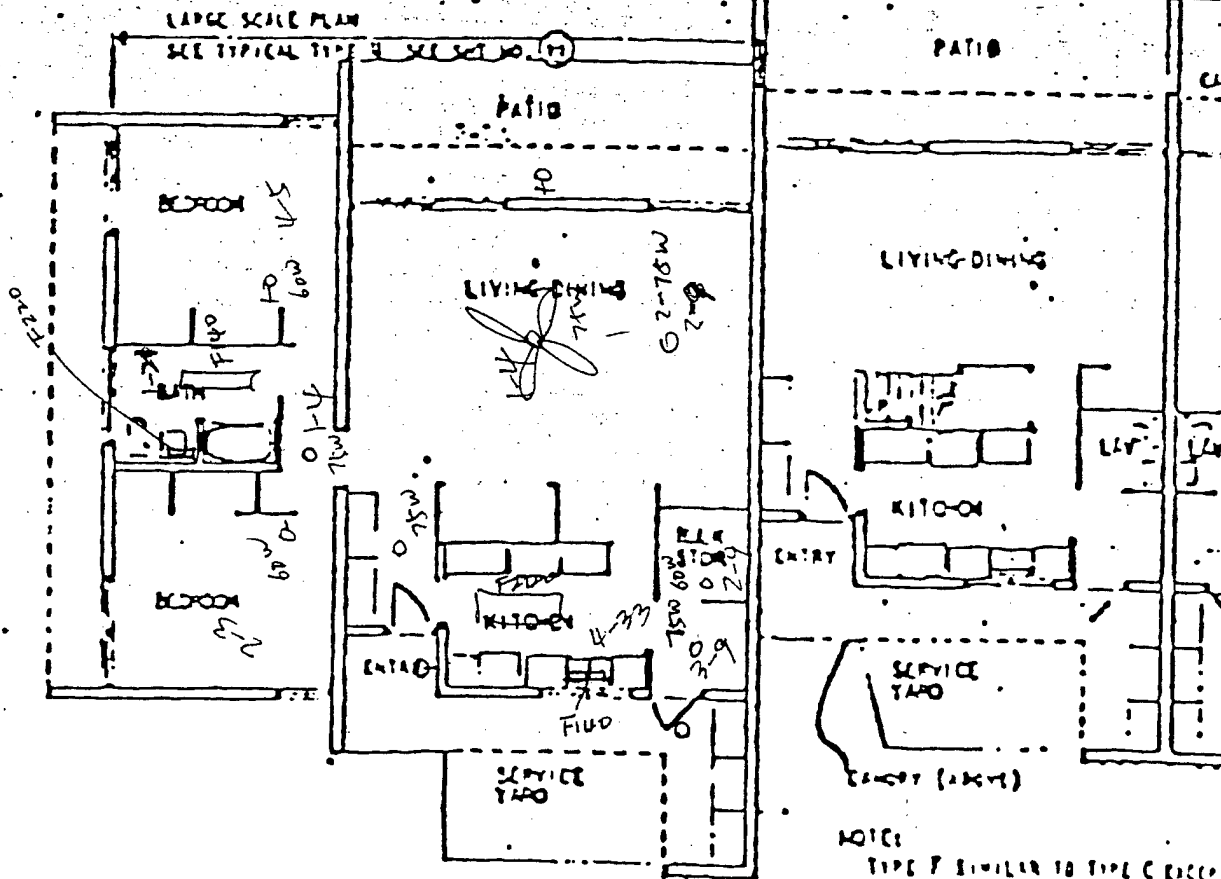
3433.D

SECOND FLOOR PLAN

SCALE 1/8" = 1'-0"

Reverse

SEE ABOUT CENTERING 2



NOTE:

TYPE F SIMILAR TO TYPE C EXCEPT 2 STORY UNITS WITH SINGLE STAIR

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3434

Building Type: 57-V

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: from 5 pm

No. of Occupants: 2

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as 57-III

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- (4)

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture       | Flow     | Water Temp. | Remarks |
|---------------|----------|-------------|---------|
| KIT. SK       | 1.5l/10s | 128F        |         |
| Bathroom Shwr | 1l/10s   | 122         |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |





Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3440

Building Type: 57-V

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: All Day

No. of Occupants: 3

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 20

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

Construction

same as S7-III

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as 57-III

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- (4)

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

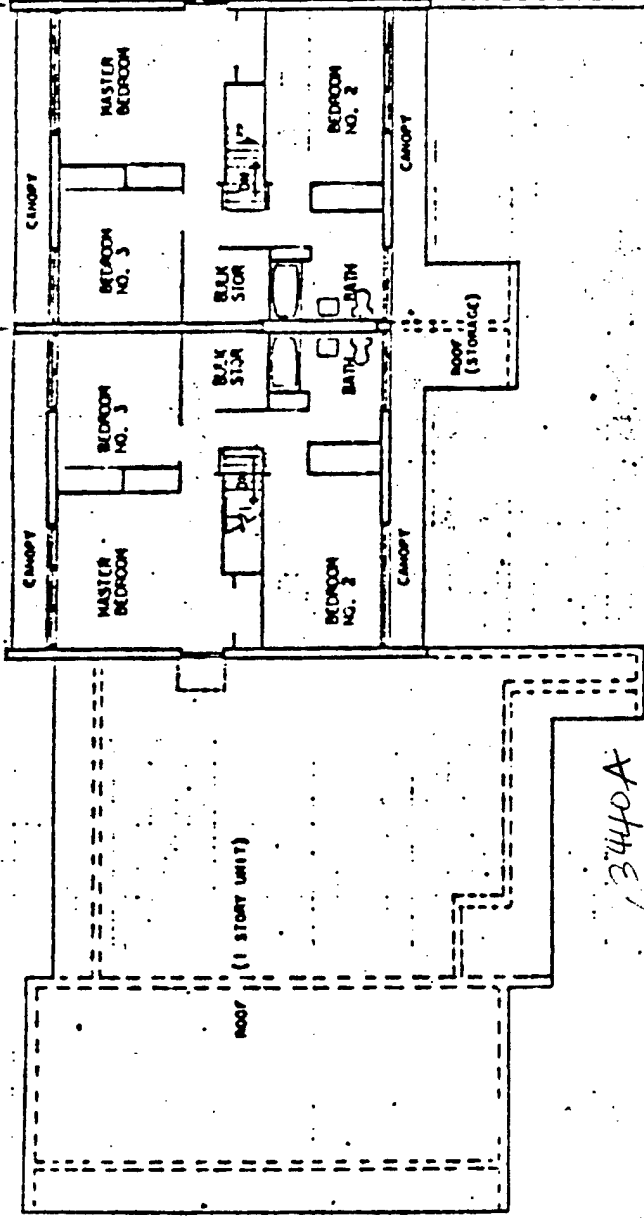
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow     | Water Temp. | Remarks             |
|---------|----------|-------------|---------------------|
| KIT. SK | 1.5ℓ/10s | 124         | Restrict. on faucet |
|         |          |             |                     |
|         |          |             |                     |
|         |          |             |                     |
|         |          |             |                     |
|         |          |             |                     |
|         |          |             |                     |
|         |          |             |                     |
|         |          |             |                     |

SEE TYPICAL TYPE 3 UNIT NO. 1



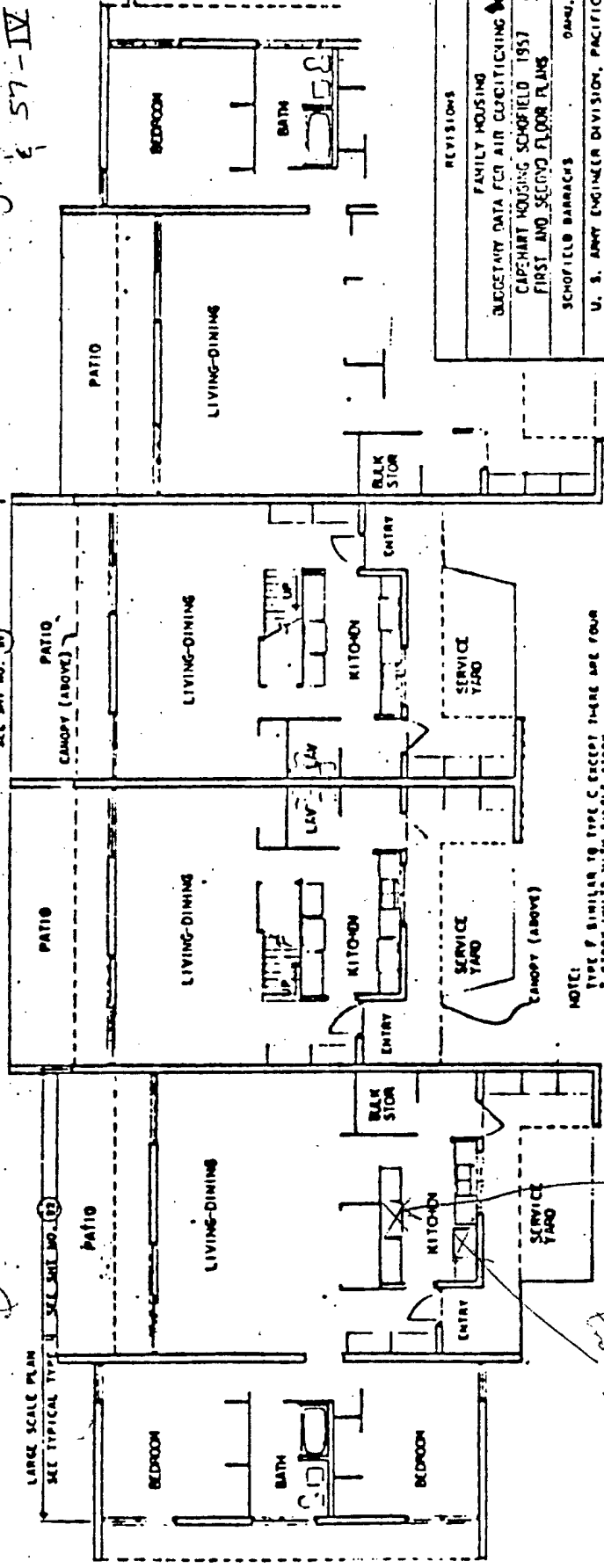
SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3440A

SYN ABOUT CENTERLINE 2 - LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SEE UNIT NO. 1

SEE SITE PLAN SHEET 07 FOR LOCATION

Type 57-V  
57-IV



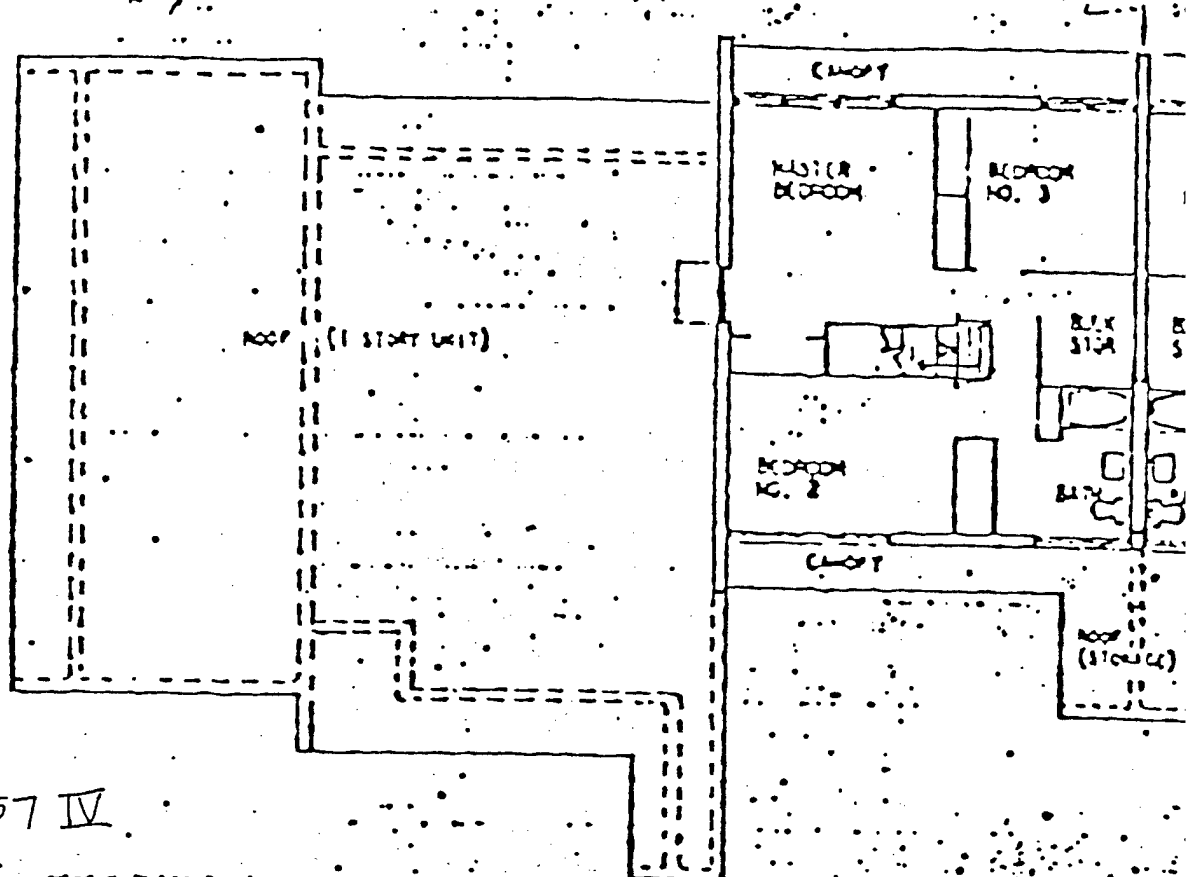
FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

See note 2 of Notes for Refrig. - which also shows

NOTE:  
TYPE 57 SIMILAR TO TYPE C EXCEPT THERE ARE FOUR  
2 STORY UNITS WITH SINGLE STORY  
UNITS AT ENDS

GRAPHIC SCALE 1/8" = 1'-0"

| REVISIONS                                    |      |      |    |
|--|------|------|----|
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS |      |      |    |
| CASEHART HOUSING SCHOFIELD 1957 AREA 4-1     |      |      |    |
| FIRST AND SECOND FLOOR PLANS TYPE C          |      |      |    |
| SCHOFIELD BARRACKS                           | 0942 | 0941 |    |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |      |      |    |
| COMPS OF ENGINEERS                           |      |      |    |
| HONOLULU, HAWAII                             |      |      |    |
| LOC. CODE 1104                               | 25   | 23   | 07 |
|  |      |      | 17 |



TYPE 57 IV & 57 IV

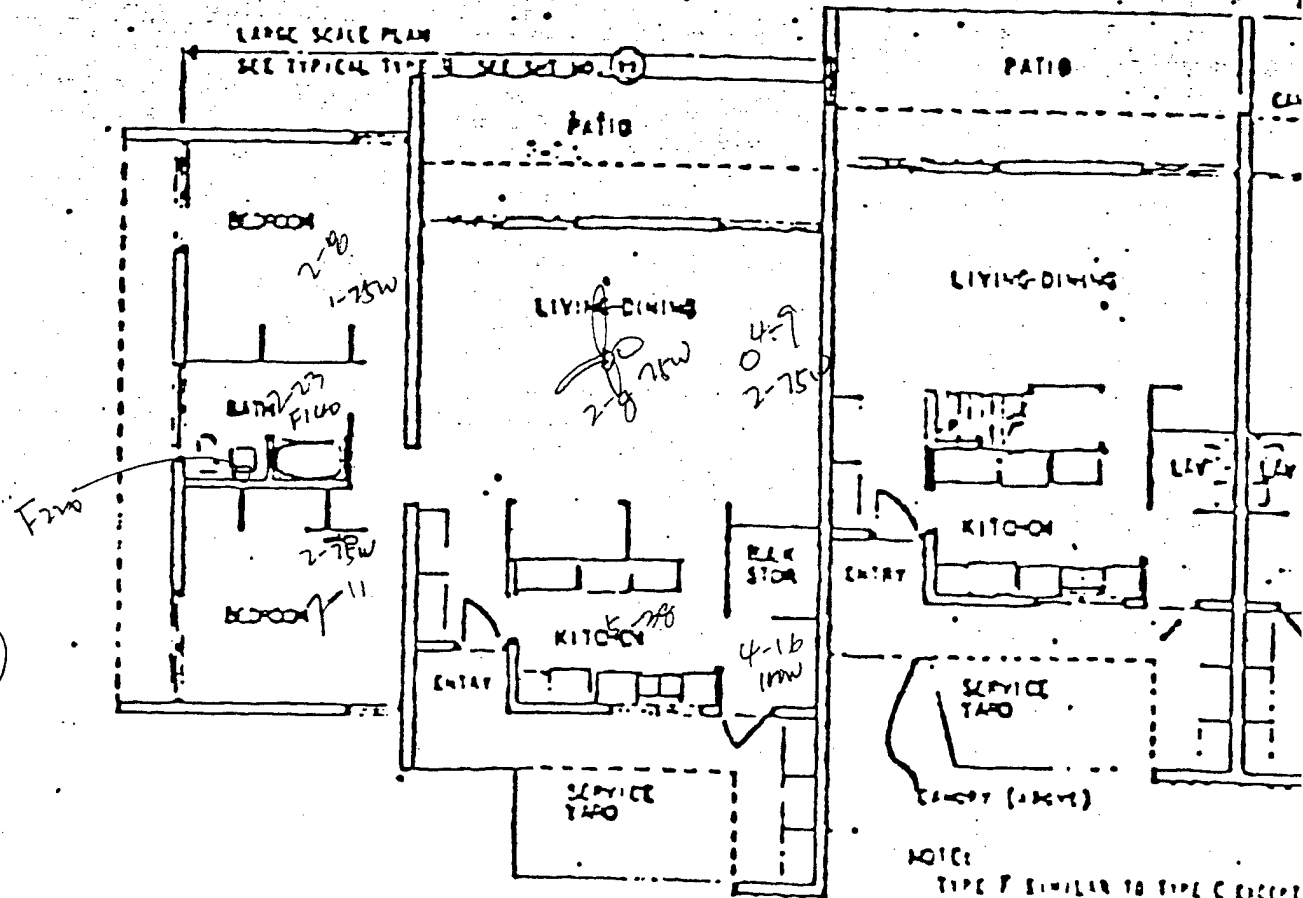
SECOND FLOOR PLAN

SCALE 1/8" = 1'-0"

SYN ABOUT CENTERLINE 2'-0"

LARGE SCALE PLAN

SEE TYPICAL TYPE 3 SEE SYNO (17)



NOTE:

TYPE F SIMILAR TO TYPE C EXCEPT 2 STORY UNITS WITH SINGLE STORY

2440 A

Date: 11/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3442

Building Type: S7-V

Apartment: D

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 2

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 15

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-111

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

### Reflective Coating

### 3.0 HOT WATER SYSTEM

same as 57-111

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- a. Is System Supported from (check one):

       Central Plant                             One System per Building

       Several Small Systems per Building

\_\_\_\_ Individual EWH/Unit

- b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F

- c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

---

---

---

- d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

- e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
- 1) Storage \_\_\_\_\_
- 2) Instantaneous \_\_\_\_\_
- 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

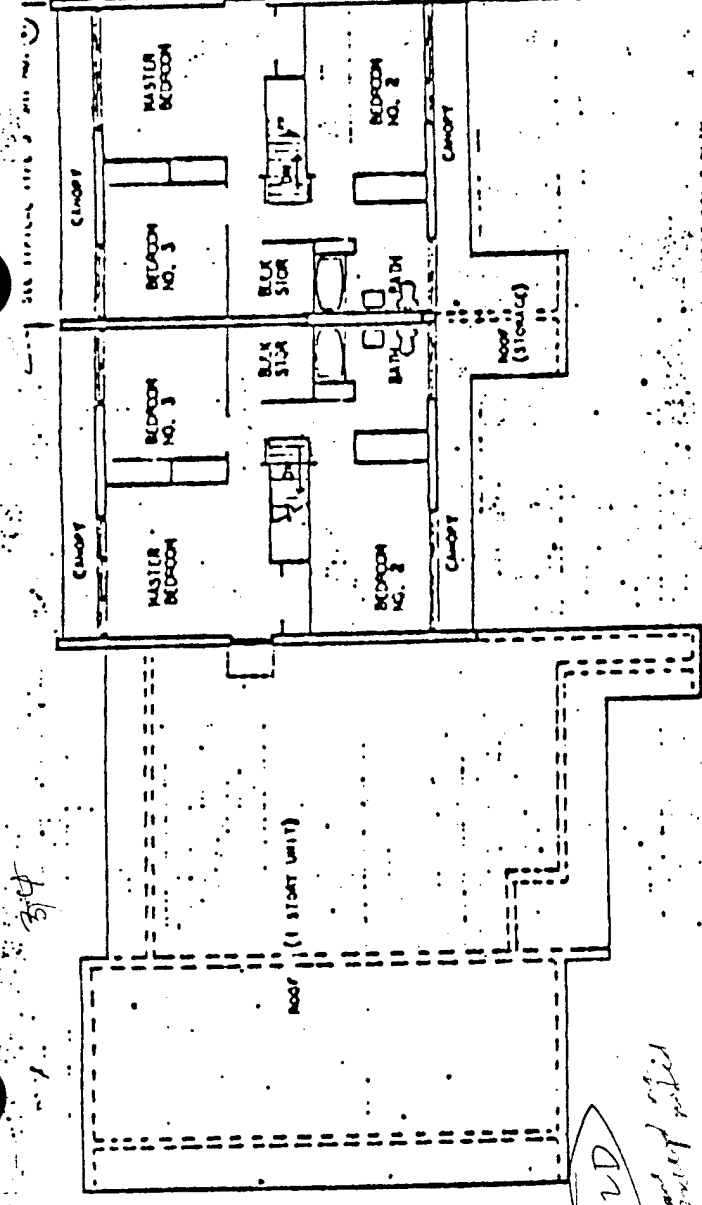
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture       | Flow     | Water Temp. | Remarks             |
|---------------|----------|-------------|---------------------|
| KIT. SK       | 1.5l/10s | 116 F       |                     |
| Bathroom Shwr | 12/10s   | 112         | Shower Massage Head |
|               |          |             |                     |
|               |          |             |                     |
|               |          |             |                     |
|               |          |             |                     |
|               |          |             |                     |
|               |          |             |                     |



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

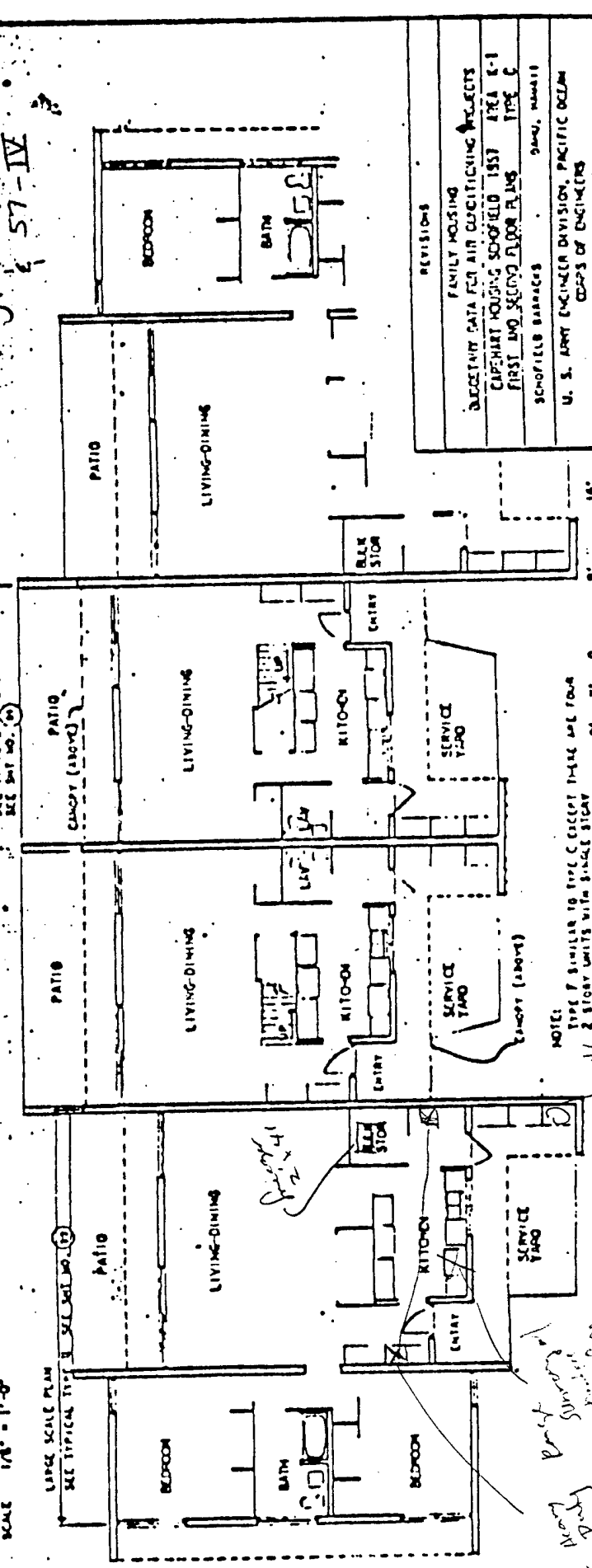
3442D

See site plan for location

SEE TYPICAL TYPE 3  
SEE UNIT NO. 10

SEE SITE PLAN SHEET 07 FOR LOCATION

TYPE 57-V  
57-IV



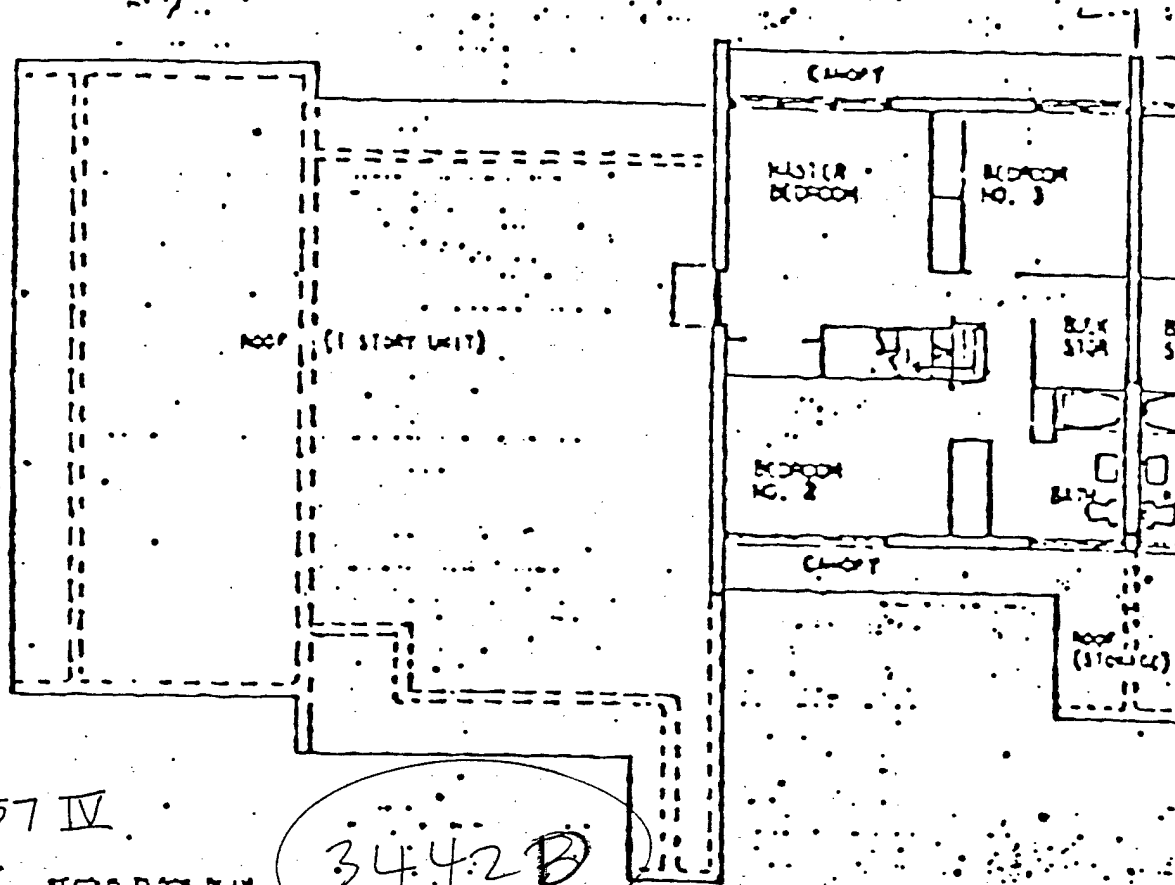
FIRST FLOOR PLAN

See site plan for location

NOTE:  
TYPE 7 SIMILAR TO TYPE C EXCEPT THERE ARE FOUR  
2 STORY UNITS WITH SINGLE STAIR  
LEVEL UNITS AT GROUND

SEE TYPICAL TYPE 3  
SEE UNIT NO. 10

| REVISIONS |   |
|-----------|---|
| 1         | RECEIVED DATA FOR AIR CONDITIONING PROJECTS |
| 2         | CAPENHART HOUSING SCHOOL 1957 AREA E-1      |
| 3         | FIRST AND SECOND FLOOR PLANS TYPE C         |
| 4         | SCHOOL BARRACKS                             |
| 5         | U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN |
| 6         | COOPS OF ENGINEERS                          |
| 7         | HONOLULU, HAWAII                            |

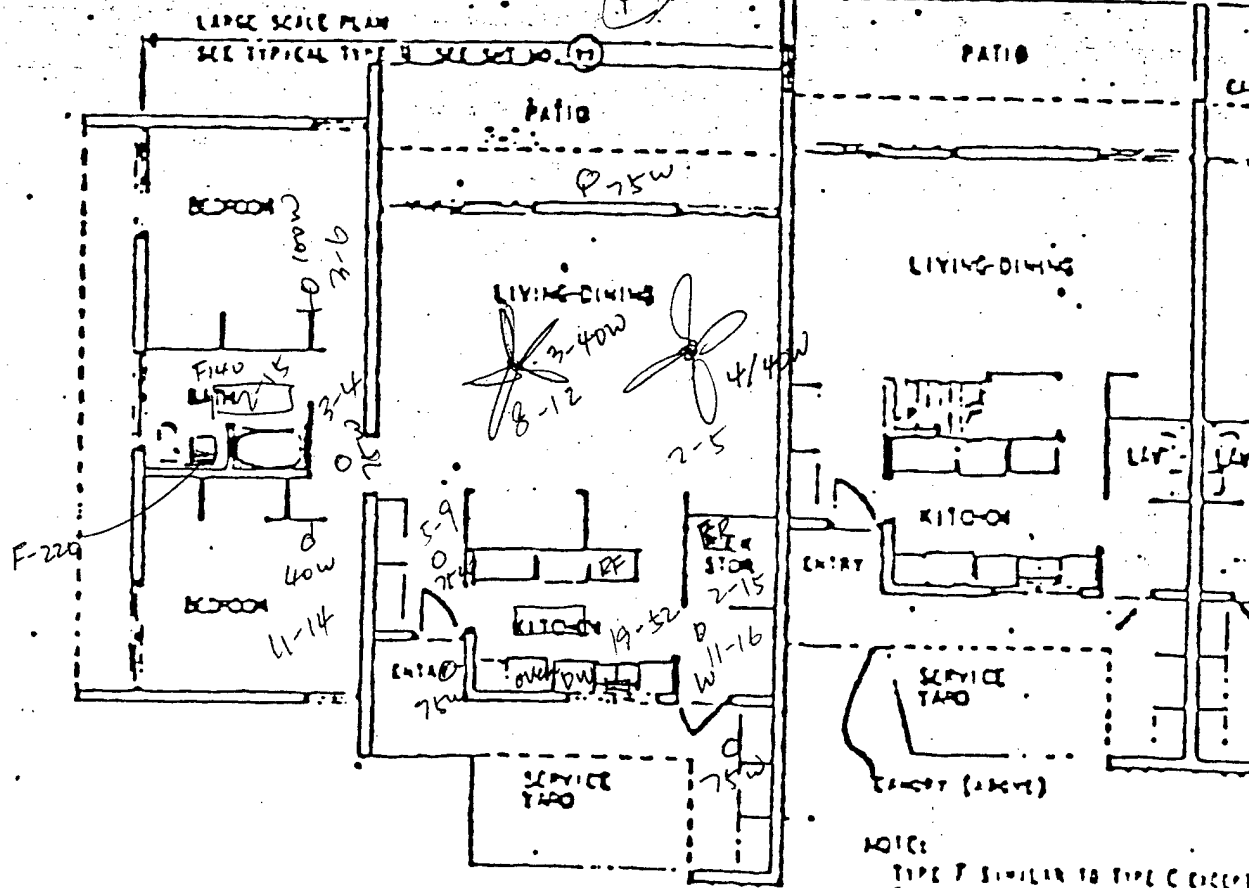


TYPE 57 V & 57 IV

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

34.42 B

SEE ABOUT CENTERLINE 2



NOTE:  
TYPE 7 SIMILAR TO TYPE C EXCEPT  
2 STORY UNITS WITH SINGLE STORY

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3444

Building Type: 57-V

Apartment: E

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 2.

Average No. of Showers/Day: 2/day

Average No. of Laundry Loads/Week: 1/week.

Average No. of Times Dishwasher Used/Day: N/A.

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same  
as 57-111

Window Yes No  
Tinted  
Reflective Coating /

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*same as 57-111*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

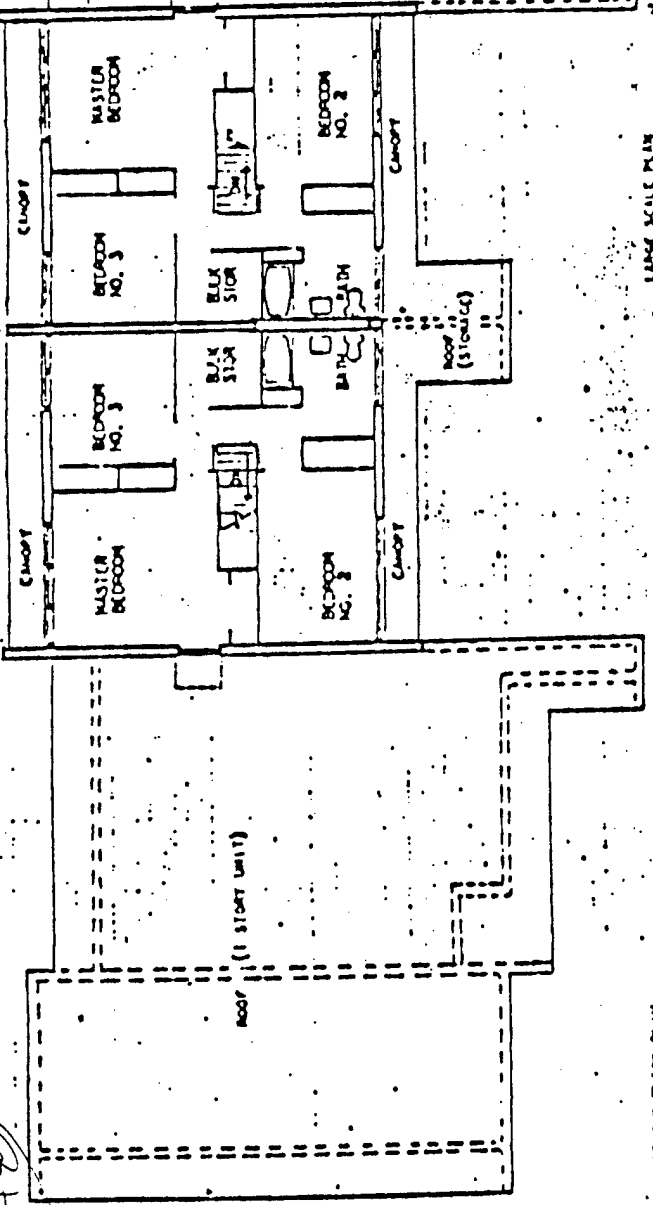
### 3.4 HOT WATER FIXTURES

| Fixture | Flow      | Water Temp. | Remarks              |
|---------|-----------|-------------|----------------------|
| Kit Sk  | 1.5 l/10s | 130 F       | Flow Rest. on faucet |
|         |           |             |                      |
|         |           |             |                      |
|         |           |             |                      |
|         |           |             |                      |
|         |           |             |                      |
|         |           |             |                      |
|         |           |             |                      |
|         |           |             |                      |

34448

TYPE 57-V  
TYPE 57-IV

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

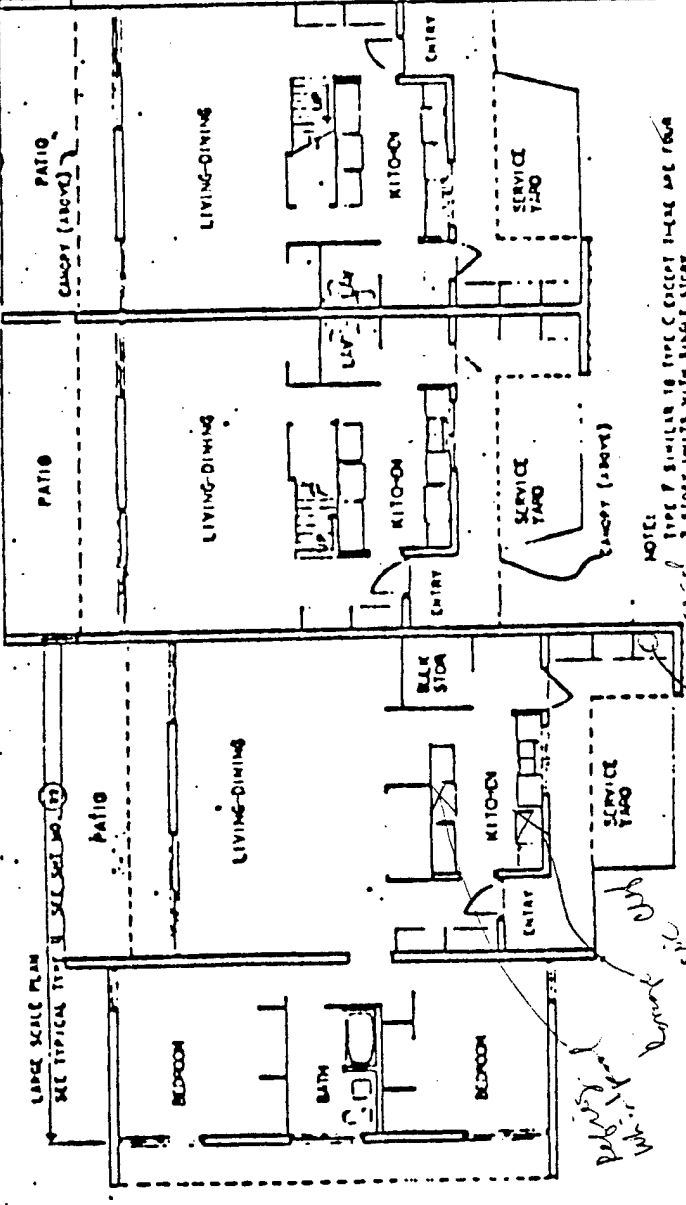


SEE TYPICAL TYPE 3  
SEE UNIT NO. 10

SEE SITE PLAN SHEET 67 FOR LOCATION

TYPE 57-V  
TYPE 57-IV

LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SEE SITE PLAN SHEET 67



LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SEE SITE PLAN SHEET 67

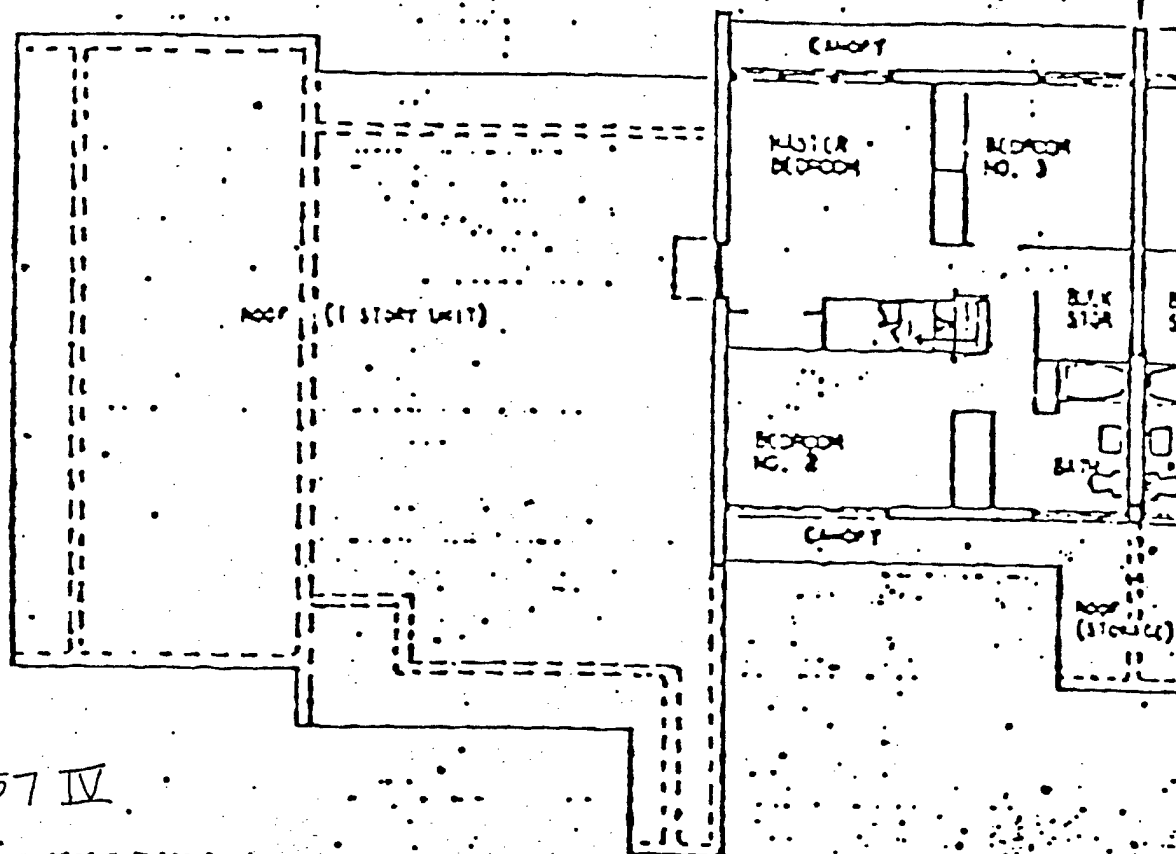
FIRST FLOOR PLAN

| REVISIONS                                    |    |    |    |
|--|----|----|----|
| 1  | 25 | 07 | 17 |
| FAMILY HOLDING                               |    |    |    |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS |    |    |    |
| CAPHART HOUSING SCHOOL TEST AREA C-1         |    |    |    |
| FIRST AND SECOND FLOOR PLANS                 |    |    |    |
| SCHOOL BARRACKS                              |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |    |    |    |
| HEADQUARTERS OF ENGINEERS                    |    |    |    |
| HONOLULU, HAWAII                             |    |    |    |

NOTE:  
TYPE 57 IS SIMILAR TO TYPE C EXCEPT THERE ARE FOUR  
2 STORY UNITS WITH SINGLE STAIR  
W/ HALL (BYPASS) IS AT CORN

Unit 10  
Unit 11  
Unit 12  
Unit 13  
Unit 14  
Unit 15  
Unit 16  
Unit 17  
Unit 18  
Unit 19  
Unit 20  
Unit 21  
Unit 22  
Unit 23  
Unit 24  
Unit 25  
Unit 26  
Unit 27  
Unit 28  
Unit 29  
Unit 30  
Unit 31  
Unit 32  
Unit 33  
Unit 34  
Unit 35  
Unit 36  
Unit 37  
Unit 38  
Unit 39  
Unit 40  
Unit 41  
Unit 42  
Unit 43  
Unit 44  
Unit 45  
Unit 46  
Unit 47  
Unit 48  
Unit 49  
Unit 50  
Unit 51  
Unit 52  
Unit 53  
Unit 54  
Unit 55  
Unit 56  
Unit 57  
Unit 58  
Unit 59  
Unit 60  
Unit 61  
Unit 62  
Unit 63  
Unit 64  
Unit 65  
Unit 66  
Unit 67  
Unit 68  
Unit 69  
Unit 70  
Unit 71  
Unit 72  
Unit 73  
Unit 74  
Unit 75  
Unit 76  
Unit 77  
Unit 78  
Unit 79  
Unit 80  
Unit 81  
Unit 82  
Unit 83  
Unit 84  
Unit 85  
Unit 86  
Unit 87  
Unit 88  
Unit 89  
Unit 90  
Unit 91  
Unit 92  
Unit 93  
Unit 94  
Unit 95  
Unit 96  
Unit 97  
Unit 98  
Unit 99  
Unit 100





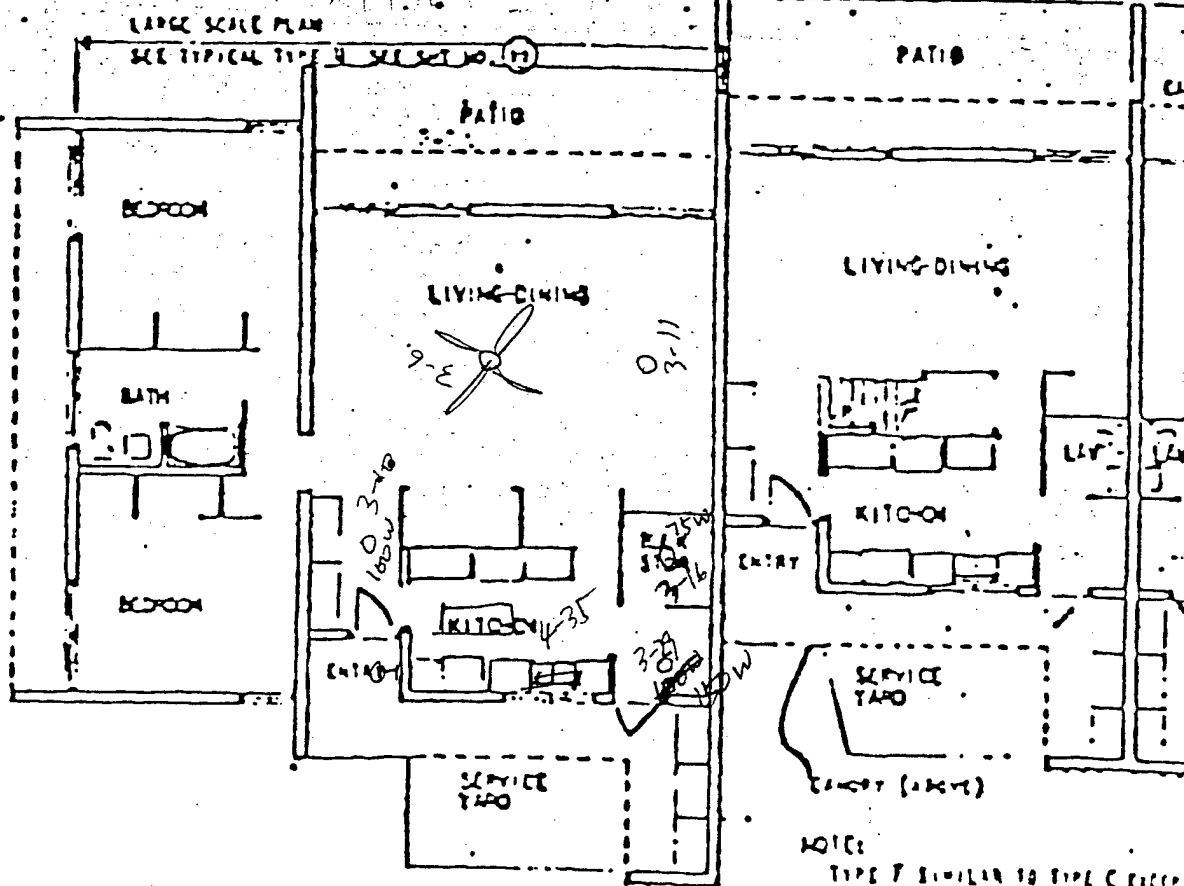
TYPE 57 V & 57 IV

SECOND FLOOR PLAN

SCALE 1/8" = 1'-0"

3444 E

SEE ABOUT CENTERLINE 2



NOTE:  
TYPE F SIMILAR TO TYPE C EXCEPT  
2 STORY UNITS WITH SINGLE STORY

UNIT TYPE 57-VI

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3430

Building Type: S7-V1

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 4

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 12

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-111

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

### Reflective Coating

Same as S.7-III

a. Is System Supported from (check one):

Several Small Systems per Building

\_\_\_\_\_ Individual EWH/Unit

OF

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Insulation Thickness: \_\_\_\_\_

1) Condition of circular \_\_\_\_\_

2) Circulator capacity \_\_\_\_\_

3) Is aquastat provided?

4) Aquastat temperature setting \_\_\_\_\_

5) Mfg/Model \_\_\_\_\_

6) Electrical Data \_\_\_\_\_

a. Location \_\_\_\_\_

b. Areas Served \_\_\_\_\_

c.. Manufacturer and Model \_\_\_\_\_

d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

e. Type Heaters & Quantities:

1) Storage \_\_\_\_\_

2) Instantaneous \_\_\_\_\_

3) Semi-Instantaneous \_\_\_\_\_

f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow    | Water Temp. | Remarks |
|---------|---------|-------------|---------|
| KIT SK  | 2 1/10s | 120         |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |

BUILDING NUMBER

3430, 3408, 3708, 3713  
3778, 3807

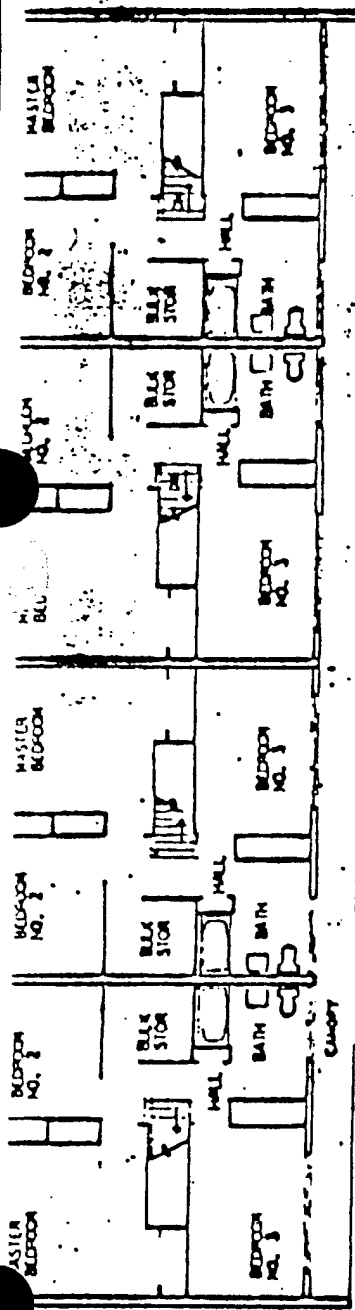
SEE SITE PLAN 3-411 (P) FOR LOCATION

Type 57-VI

|   |    |    |    |     |    |
|---|----|----|----|-----|----|
| LOC CODE 4770   | 25 | 23 | OF | 307 | 10 |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN<br>CORPS OF ENGINEERS<br>HONOLULU, HAWAII   |    |    |    |     |    |
| 3000/110 BUREAU<br>1000/110 BUREAU  |    |    |    |     |    |
| FIRST AND SECOND FLOOR PLANS TYPE B<br>CEMENT HOUSE BOARDS 1987 JAN 1-1<br>FAMILY RECORDS<br>BUREAU DATA FOR AIR CONDITIONING RECORDS |    |    |    |     |    |

15:30 AM

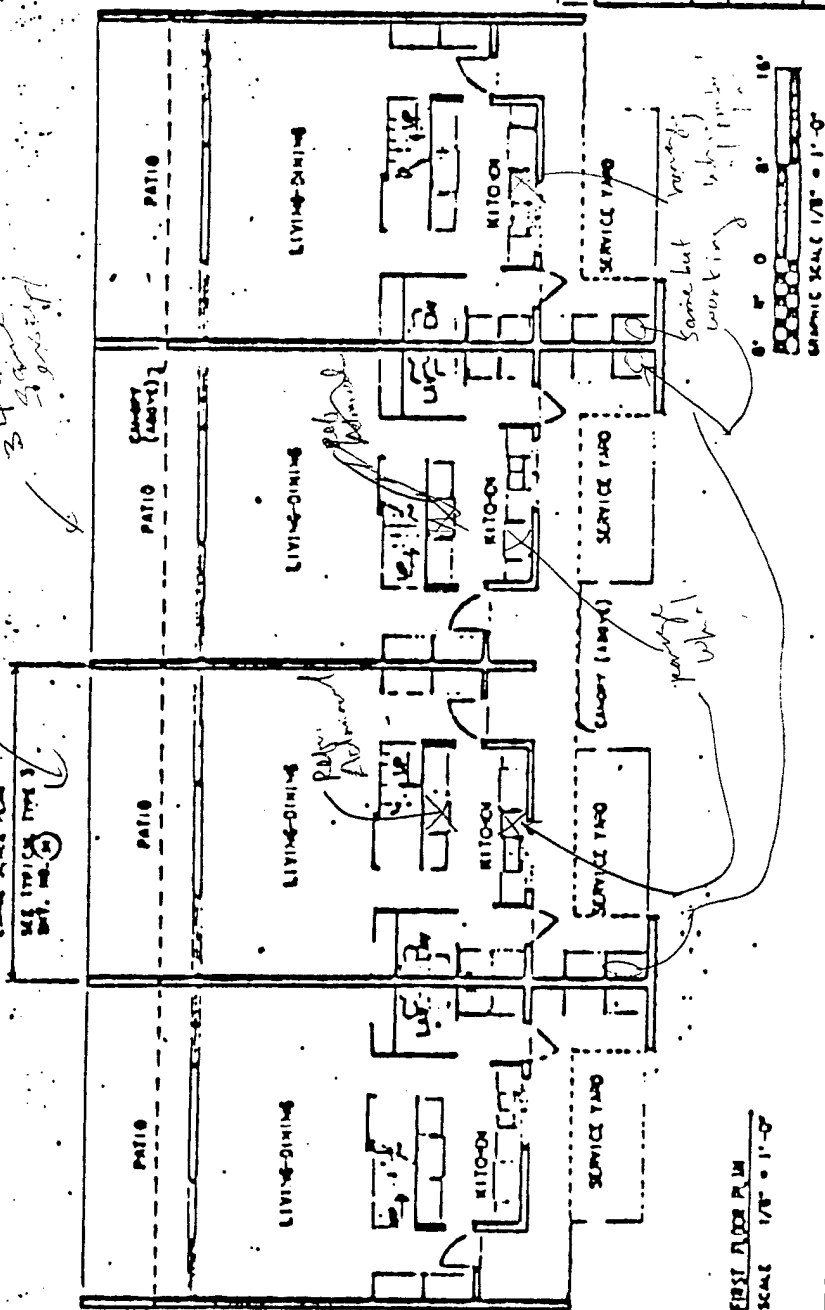
73



SECOND FLOOR N. 221.  
N. 221 - 221. 221.

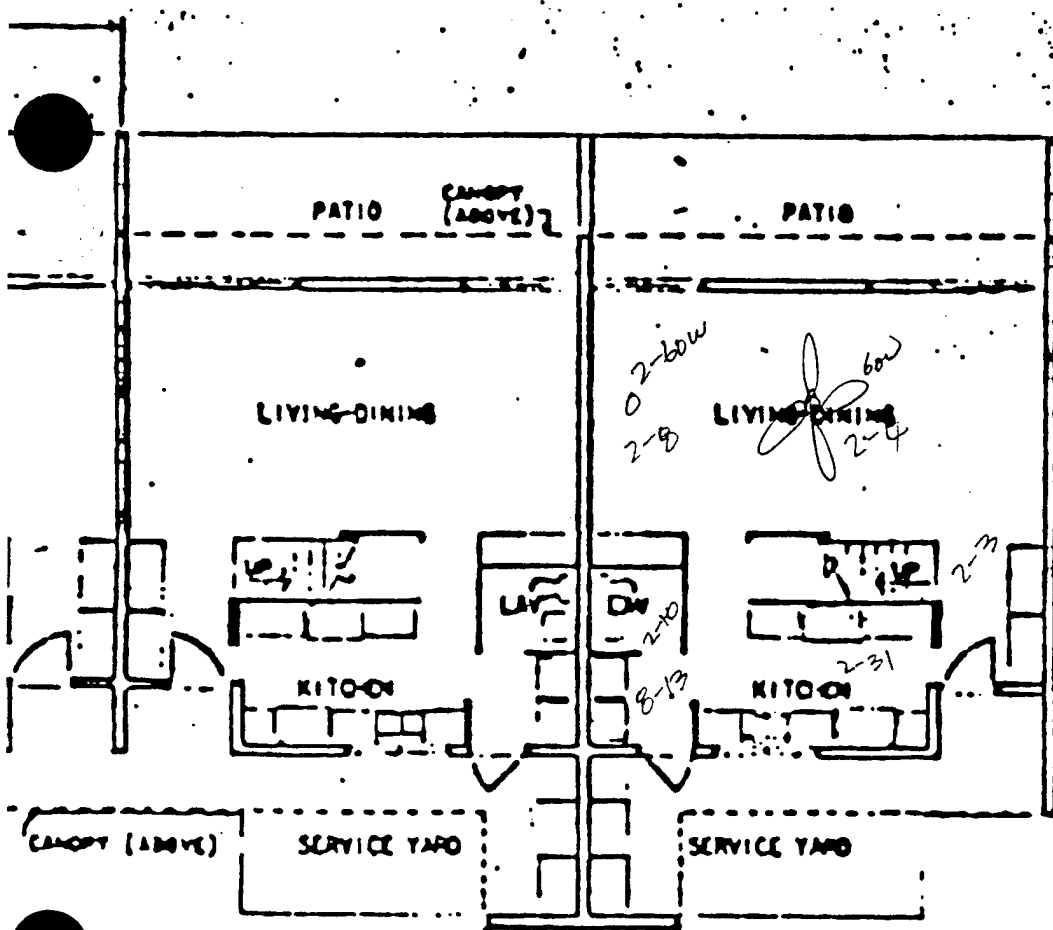
3430 B

3430  
3430  
3430



ESTIMATED TOTAL

same but working



Type 57-VI

|  |  |    |    |
|--|--|----|----|
| REVISIONS  |  |    |    |
| FAMILY HOUSING   |  |    |    |
| SUPPLEMENTARY DATA FOR AIR CONDITIONING                                    |  |    |    |
| CAPEHART HOUSING SCHOFIELD 195   |  |    |    |
| FIRST AND SECOND FLOOR PLANS   |  |    |    |
| SCHOFIELD BARBERS  |  |    |    |
| U. S. ARMY ENGINEER DIVISION, PE<br>CORPS OF ENGINEERS<br>HONOLULU, HAWAII |  |    |    |
| LOC. CODE 8270   |  | 25 | 25 |
|  |  |    | 07 |



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3430  
Building Type: 57-V1  
Apartment: C  
No. Bedrooms: 3  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: 8  
No. of Occupants: 3  
Average No. of Showers/Day: 2  
Average No. of Laundry Loads/Week: 7  
Average No. of Times Dishwasher Used/Day: every other day  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*Same as S7-III*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes / No

Tinted

Reflective Coating

### 3.0 HOT WATER SYSTEM

*Same as 57-111*

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building

       Several Small Systems per Building

       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:            °F  
           °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

1) Condition of circular \_\_\_\_\_

2) Circulator capacity \_\_\_\_\_

3) Is aquastat provided? \_\_\_\_\_

4) Aquastat temperature setting \_\_\_\_\_

5) Mfg/Model \_\_\_\_\_

6) Electrical Data \_\_\_\_\_

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location \_\_\_\_\_

b. Areas Served \_\_\_\_\_

c. Manufacturer and Model \_\_\_\_\_

d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

e. Type Heaters & Quantities:

1) Storage \_\_\_\_\_

2) Instantaneous \_\_\_\_\_

3) Semi-Instantaneous \_\_\_\_\_

f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kitsk   | 22/100 | 104         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

Floor plan of the second floor of the apartment building at 1000 14th St. S. The plan shows four identical apartment units arranged in a row. Each unit includes a Master Bedroom, a second Bedroom, a Bath, a Hall, a Living Room, and a Kitchen. The units are numbered 1 through 4 from left to right. The plan is oriented with the entrance to the building on the right side, indicated by a 'CLOSET' label and an arrow pointing towards the units.

2000 FLOPS ALU  
SUM = 170 = 1'-0"

3430 B

34300  
34300  
34300

THE  
THE

← 3704.D.  
• Same except  
en- noted

**התאחדות המורים**

171-1  
172.  
173.  
174.  
175.

THE NEW YORK PUBLIC LIBRARY  
ASTOR LENOX TILDEN FOUNDATION  
500 5TH AVENUE  
NEW YORK 17, N.Y.

Type S7-VI

**2015-16**

## FAMILY HISTORY

STANDARD DATA FOR AIR CONDITIONING

**1-777-867-0009**

First and Second Floor

**SECRET**

[illegible]

WILLIAM DE KROM

**HOQUILY, HAWAII**

|   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |     |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|

[illegible]

53

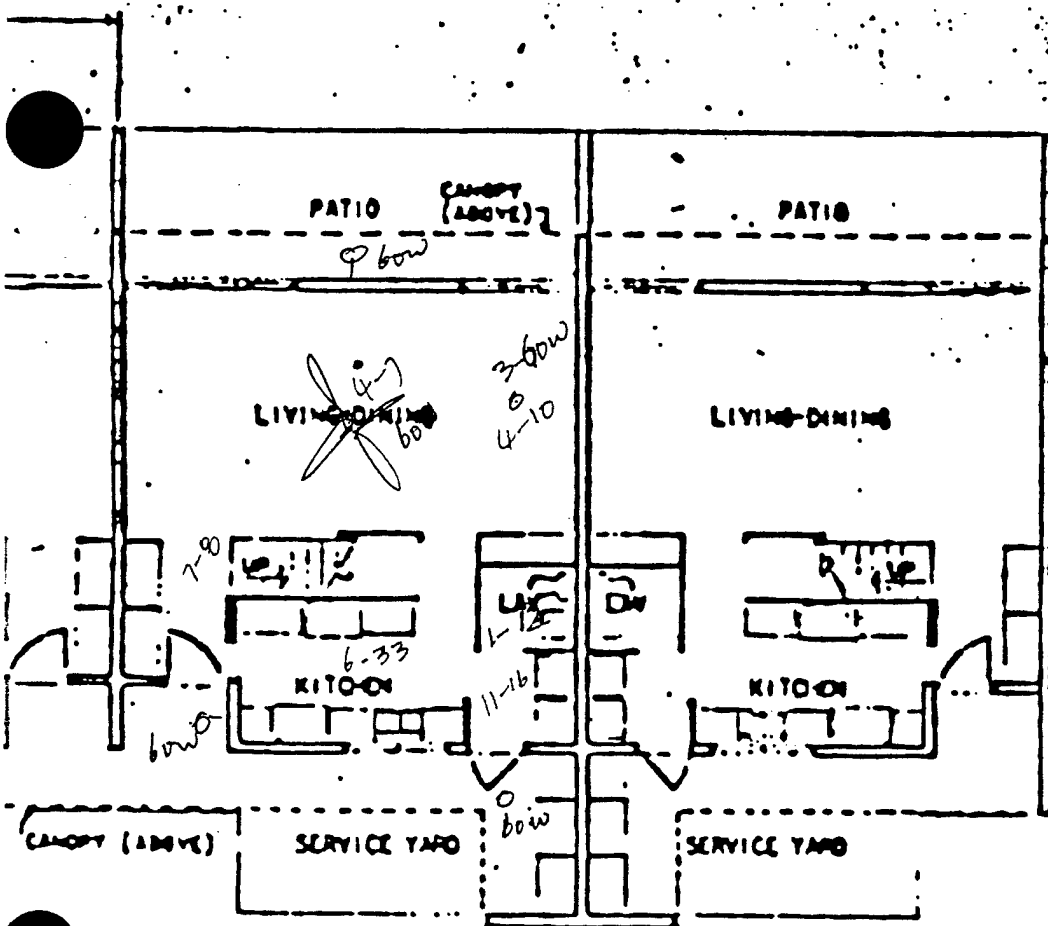
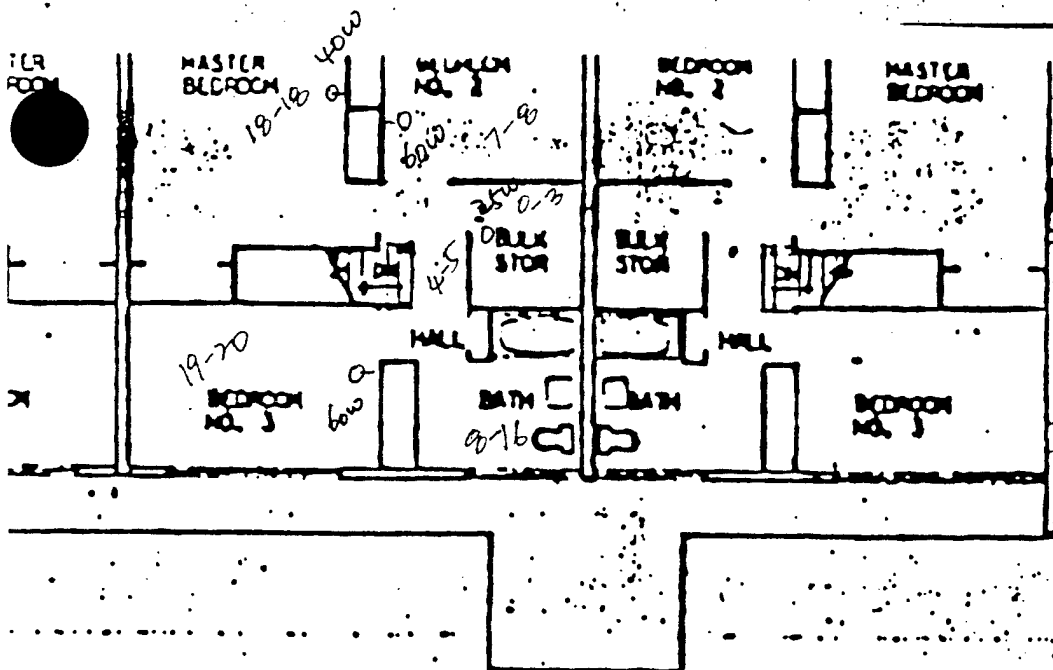
00

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The concentration of the *Agrobacterium* suspension was 10<sup>6</sup> cells/ml (○), 10<sup>7</sup> cells/ml (□), 10<sup>8</sup> cells/ml (△), and 10<sup>9</sup> cells/ml (◇). The data were the mean of three independent experiments.

1. *Chlorophyll a* and *Chlorophyll b* contents were determined by spectrophotometry using the method of Lichtenthaler and Whaley (1983).

**Figure 1**

1500 PM  
 178 - 10-0



3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

#### BUILDING NUMBERS

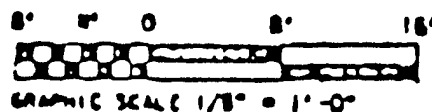
3430, 3608, 3704, 3713  
 3720, 3807

SEE SITE PLAN SHEET (67) FOR LOCATION

Type 57-VI

#### REVISIONS

|                                     |    |    |    |
|-------------------------------------|----|----|----|
| FAMILY HOUSING                      |    |    |    |
| BUDGETARY DATA FOR AIR CONDITIONING |    |    |    |
| CAPEHART HOUSING SCHOFIELD 195      |    |    |    |
| FIRST AND SECOND FLOOR PLANS        |    |    |    |
| SCHOFIELD BARRACKS                  |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM    |    |    |    |
| CORPS OF ENGINEERS                  |    |    |    |
| HONOLULU, HAWAII                    |    |    |    |
| LOC. CODE 8299                      | 25 | 23 | 07 |



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3704  
Building Type: 57-V1  
Apartment: A  
No. Bedrooms: 3  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: all  
No. of Occupants: 5  
Average No. of Showers/Day: ~ 3  
Average No. of Laundry Loads/Week: 10  
Average No. of Times Dishwasher Used/Day: /  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



Window Yes No

Tinted

### Reflective Coating

Same as 57-III

### 3.0 HOT WATER SYSTEM

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- a. Is System Supported from (check one):

           Central Plant                                 One System per Building

       Several Small Systems per Building

           Individual EWH/Unit

- b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F

- c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

- e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
- 1) Storage \_\_\_\_\_
- 2) Instantaneous \_\_\_\_\_
- 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

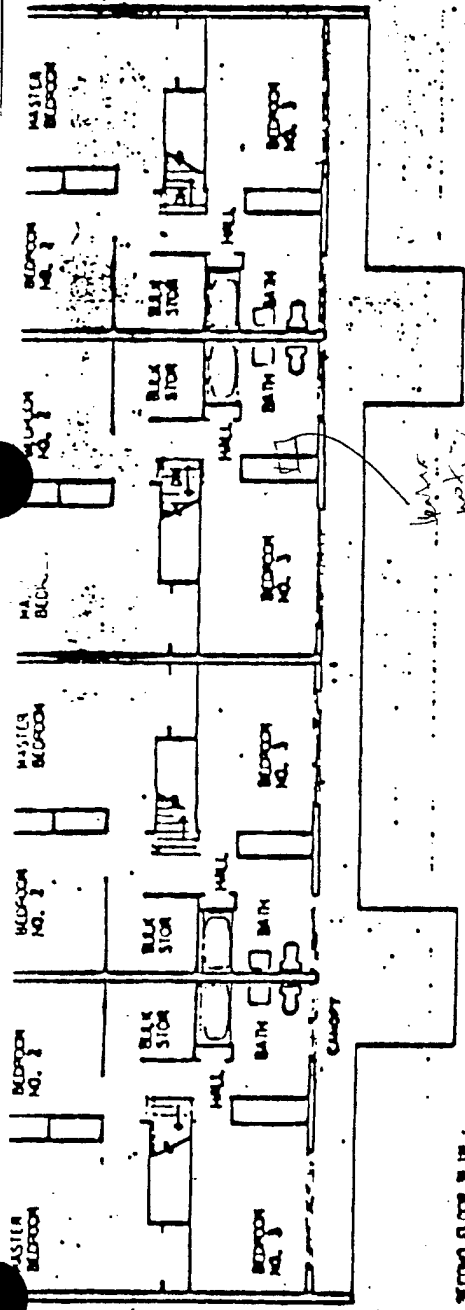
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Callons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow | Water Temp. | Remarks |
|---------|------|-------------|---------|
| Kit. SK | 2L   | 120         |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |

Diff. Type

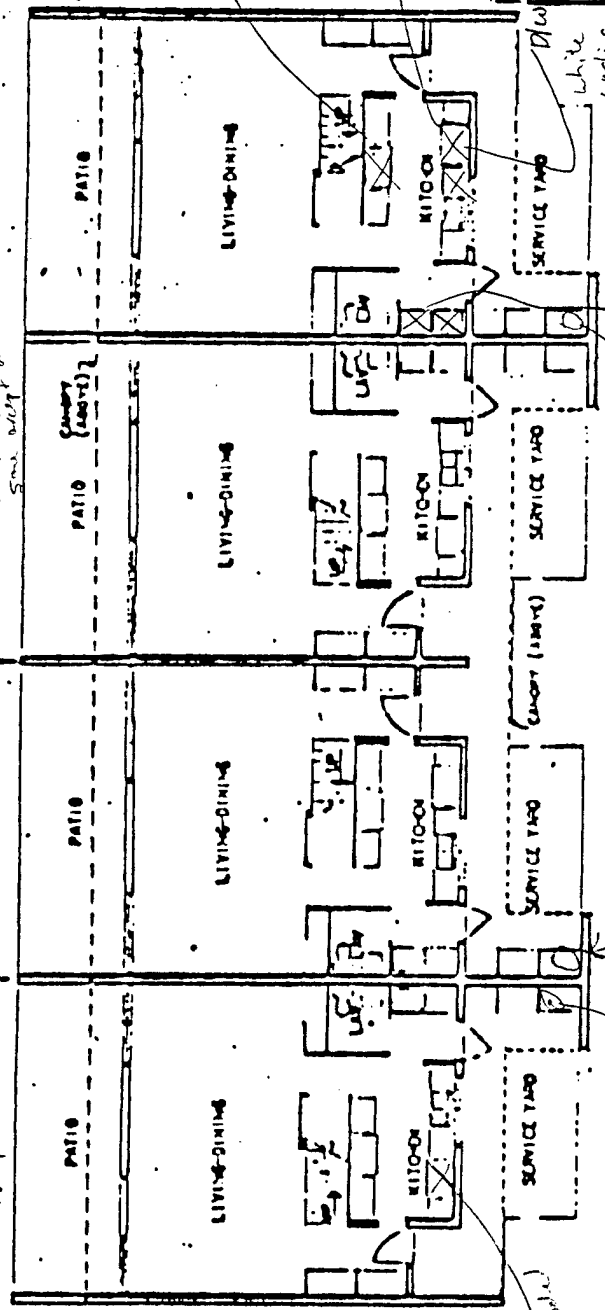


SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

374A  
Same except  
as above

LARGE SCALE PLAN  
SEE SECTION TYPE 3  
BET. NO. 2

3713 B  
Same except as unit



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

Handwritten notes: "Handwritten notes" and "Scale"

Handwritten notes: "White washing", "D 11 4 cy, 3 ft.", "Scale 1/8\" = 1'-0"

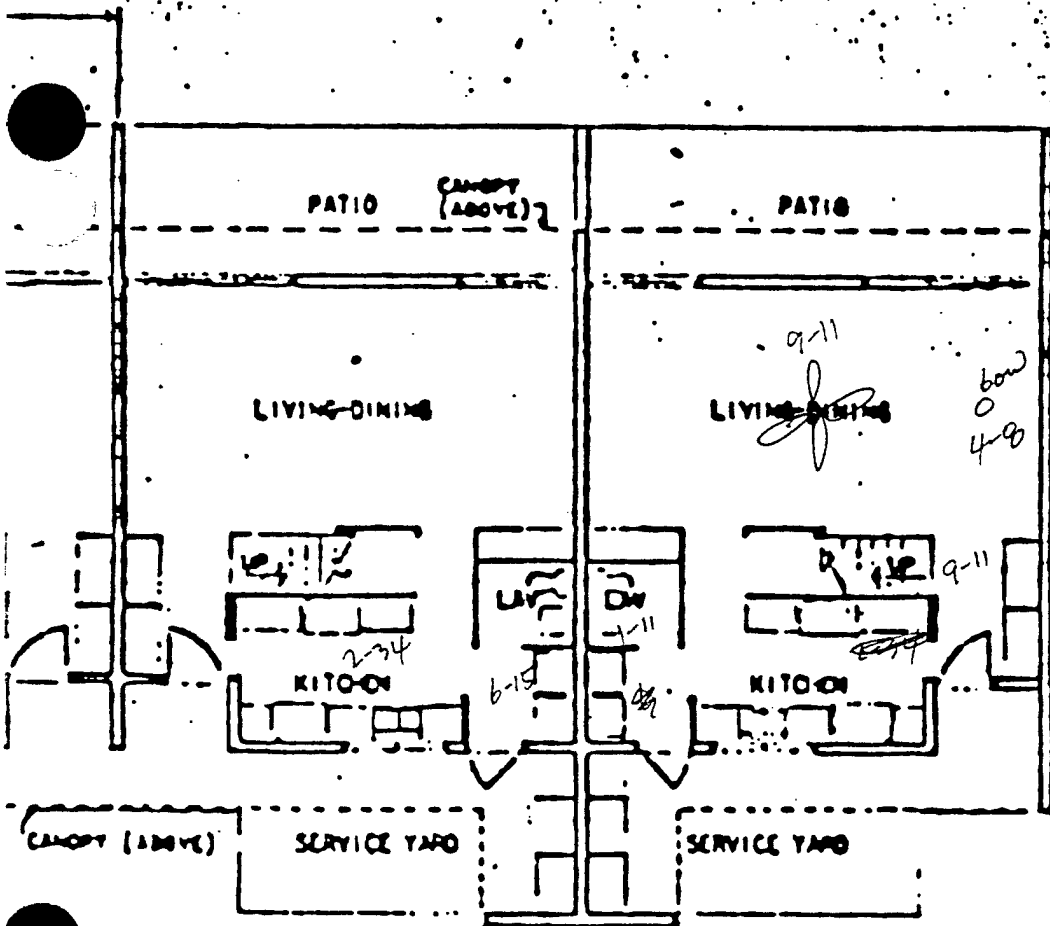
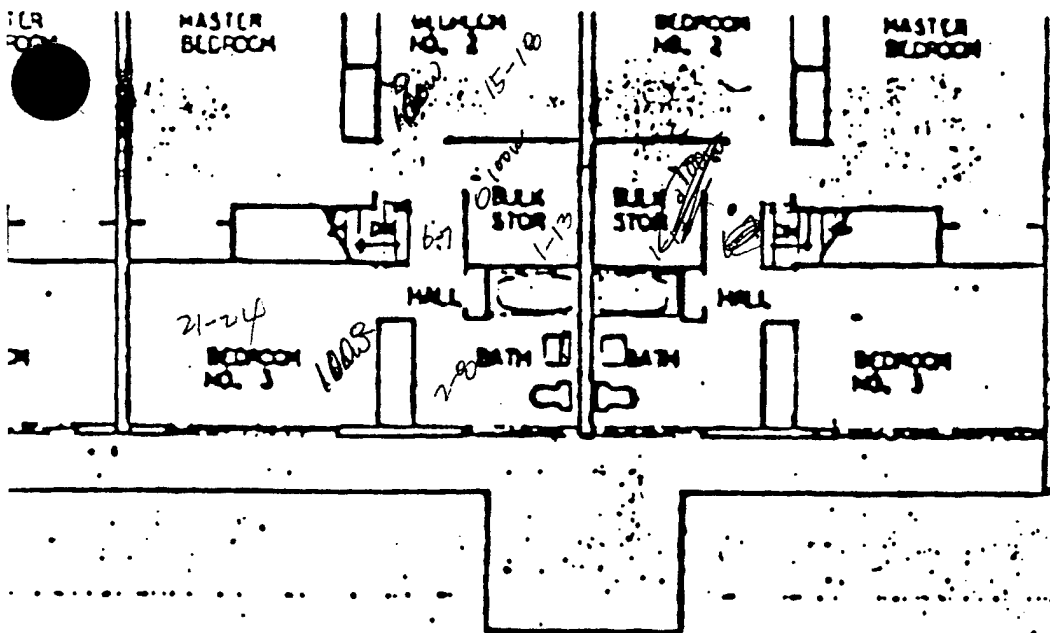
← 3713 D

Refing - Gibson  
Building Number  
3430, 3400, 3700, 3713  
3720, 3807  
SEE SITE PLAN 3431 (D) FOR LOCATION

Range - Vector 1 Norton  
Model 860  
Type 57-VI

| REVISIONS                                      |  |  |    |    |    |     |    |  |  |
|--|--|--|----|----|----|-----|----|--|--|
| FAMILY HOUSING                                 |  |  |    |    |    |     |    |  |  |
| SUBMITTANT DATA FOR AIR CONDITIONING PROJECTS  |  |  |    |    |    |     |    |  |  |
| CAPACITANT HOLDING SOCIETY 1957 AREA 1-1       |  |  |    |    |    |     |    |  |  |
| FIRST AND SECOND FLOOR PLANS TYPE B            |  |  |    |    |    |     |    |  |  |
| SCHOOL BUILDINGS                               |  |  |    |    |    |     |    |  |  |
| U. S. NAVY ENGINEERING DIVISION, PACIFIC OCEAN |  |  |    |    |    |     |    |  |  |
| COMPS OF DRAWINGS                              |  |  |    |    |    |     |    |  |  |
| MOORE, HARRIS                                  |  |  |    |    |    |     |    |  |  |
| LOC. CODE 1279                                 |  |  | 15 | 23 | 07 | 347 | 16 |  |  |
| MAY 1957                                       |  |  |    |    |    |     |    |  |  |

11/17/57



3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

#### BUILDING NUMBERS

3430, 3608, 3704, 3713  
 3720, 3807

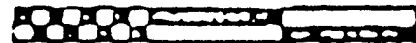
SEE SITE PLAN SHEET (07) FOR LOCATION

Type S7-VI

#### REVISIONS

|                                  |    |    |    |
|----------------------------------|----|----|----|
| FAMILY HOUSING                   |    |    |    |
| BUDGETARY DATA FOR AIR CONDITION |    |    |    |
| CAPEHART HOUSING SCHOFIELD 195   |    |    |    |
| FIRST AND SECOND FLOOR PLANS     |    |    |    |
| SCHOFIELD BARRACKS               |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM |    |    |    |
| CORPS OF ENGINEERS               |    |    |    |
| HONOLULU, HAWAII                 |    |    |    |
| LOC. CODE 8770                   | 25 | 25 | 07 |

8' 0" 8' 16'



GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3704

Building Type: 57-VI

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8 from 5 pm

No. of Occupants: 5

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 2

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-HI

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted       

Reflective Coating       

3.0 HOT WATER SYSTEM

*same as 57-111*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building

       Several Small Systems per Building

       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit Sk  | 24/105 | 120         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |



Diff. Type

← 3704: D  
same except  
in kitchen

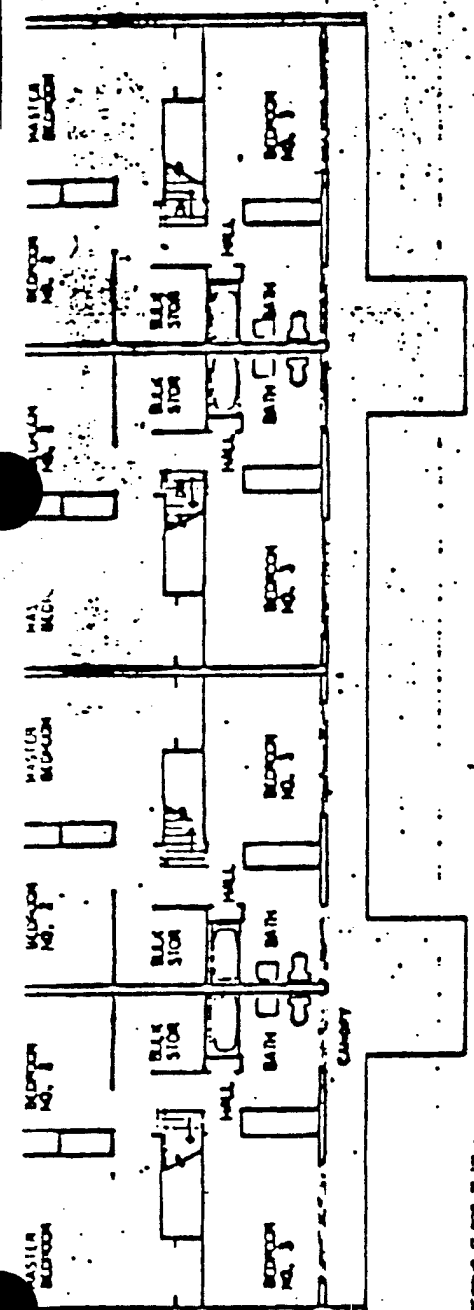
BUILDING NUMBER  
3430, 3408, 3708, 3713  
3720, 3809  
SEE SITE PLAN 3431 (C) FOR LOCATION

Type S7-VI

|  |                 |
|--|-----------------|
| FAMILY ROOMS                                 |                 |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS |                 |
| CAPITAL HOUSE SOCIETY 1937 L.A.C. 1          |                 |
| FIRST AND SECOND FLOOR PLANS TYPE B          |                 |
| SCHEDULED MATERIALS                          |                 |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  |                 |
| COMPS OF CHANGING                            |                 |
| HONOLULU, HAWAII                             |                 |
| LOC CODE 8478                                | 25 23 OF 347 14 |

May 1973

Q3

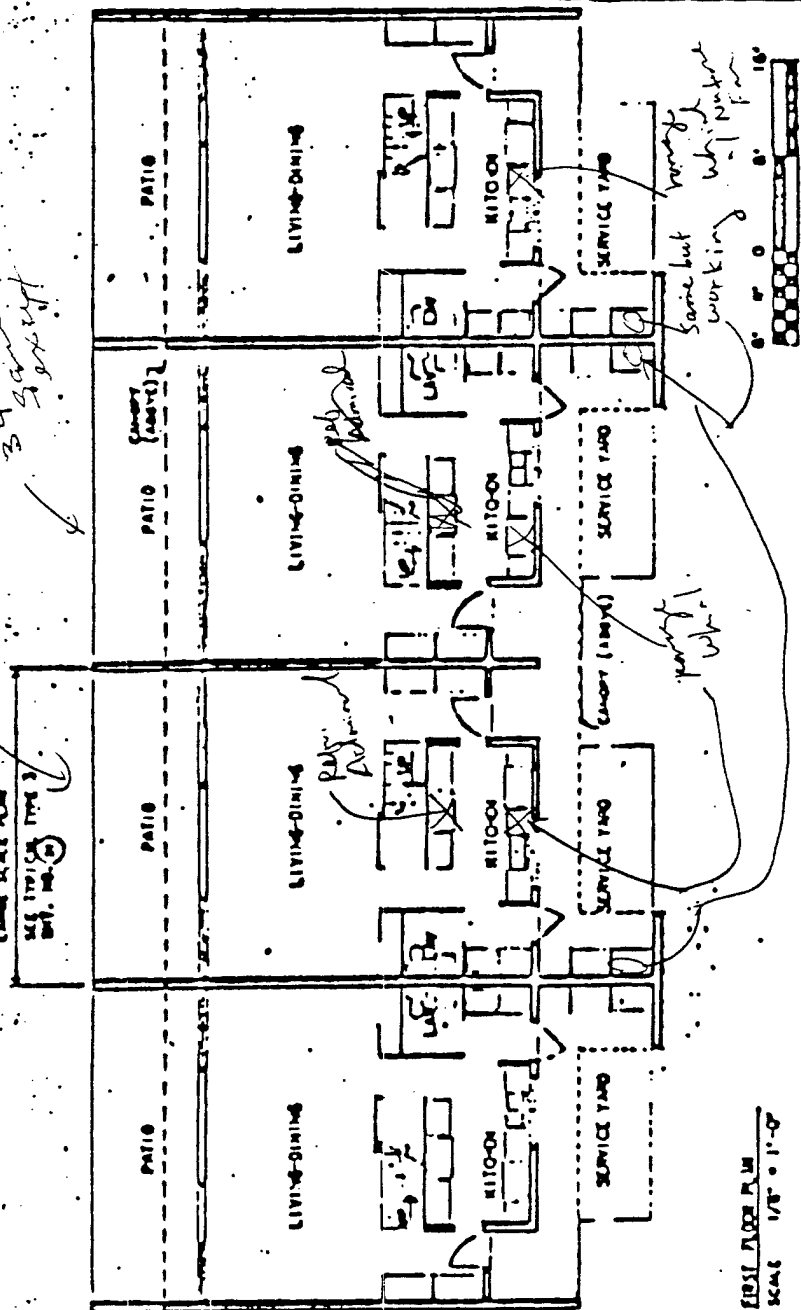


3430 B

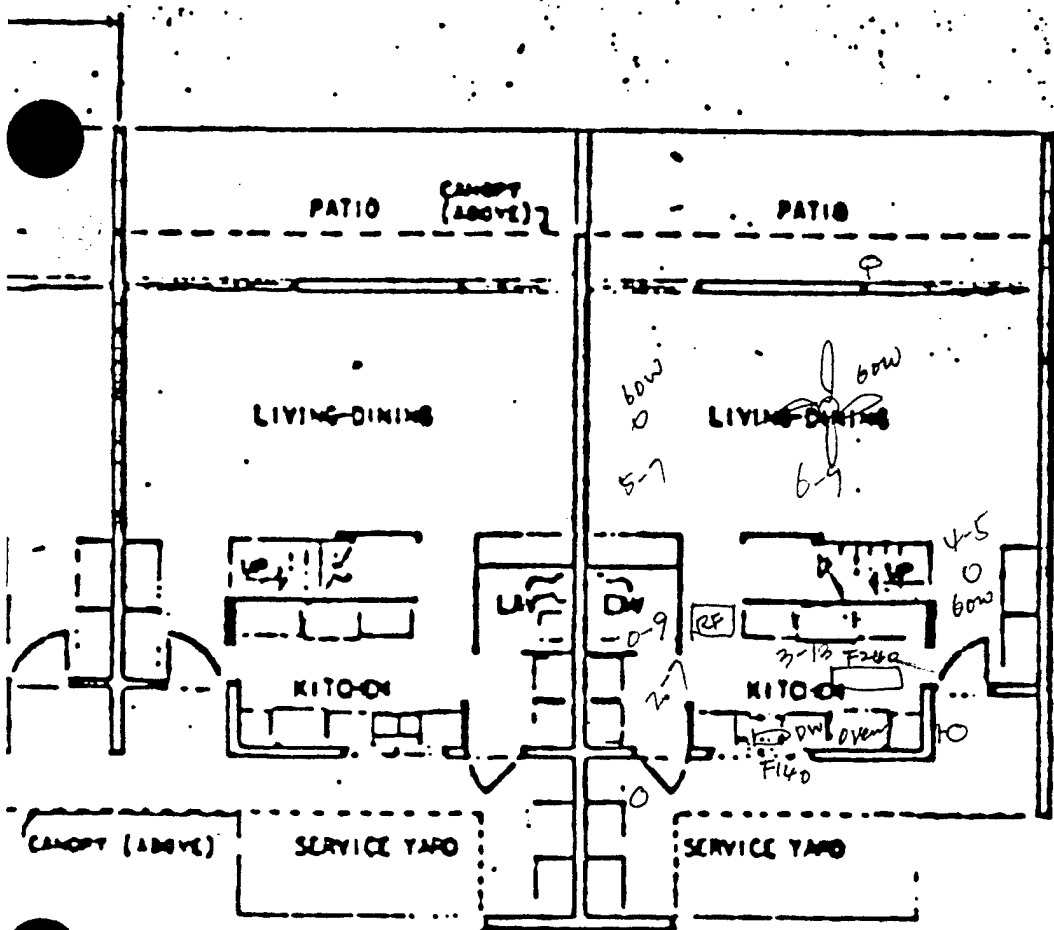
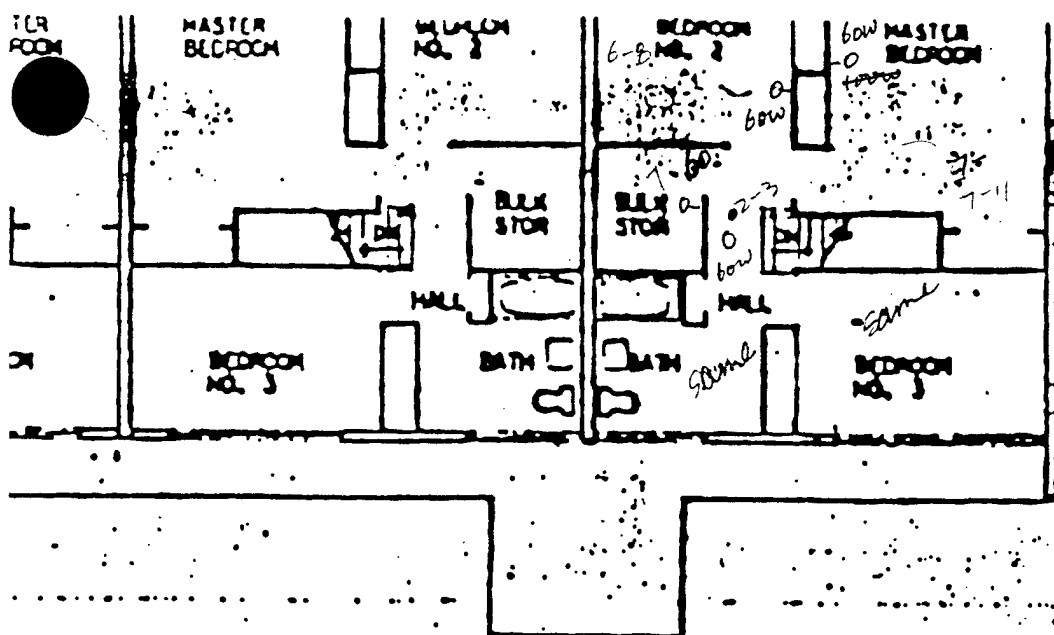
3430 C  
3430 D  
3430 E

SEE SITE PLAN TYPE B  
DIFF. NO. 3

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"



3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

#### BUILDING NUMBERS

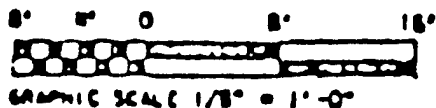
3430, 3608, 3704, 3713  
 3720, 3807

SEE SITE PLAN SHEET (67) FOR LOCATION

Type 57-VI

#### REVISIONS

|                                     |    |    |    |
|-------------------------------------|----|----|----|
| FAMILY HOUSING                      |    |    |    |
| BUDGETARY DATA FOR AIR CONDITIONING |    |    |    |
| CAPEHART HOUSING SCHOFIELD 195      |    |    |    |
| FIRST AND SECOND FLOOR PLANS        |    |    |    |
| SCHOFIELD BARRACKS                  |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM    |    |    |    |
| CORPS OF ENGINEERS                  |    |    |    |
| HONOLULU, HAWAII                    |    |    |    |
| LOC. CODE 8270                      | 25 | 25 | 07 |



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3713

Building Type: 57-VI

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 3

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 37-111

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

### Reflective Coating

Same as SM-III

a. Is System Supported from (check one):

\_\_\_\_\_ Individual EWH/Unit

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks          |
|---------|--------|-------------|------------------|
| Kit Sk. | 22/105 | 98          | Doing Wash w/ Hw |
| Shwr    | 32/105 | —           |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |

Floor plan of the second floor of the building at 1000 14th St. S. The plan shows five identical apartment units arranged in a row. Each unit consists of a bedroom, a bathroom, a living area with a fireplace, a kitchen, and a dining area. The units are labeled "BEDROOM NO. 1", "BATH", "HALL", "KITCHEN", "DINING", and "LIVING". The plan also shows a central hallway and a staircase labeled "STAIRS".

2010-2011 2010-2011

3704A  
same except

10-01-1961  
 10-01-1961  
 10-01-1961

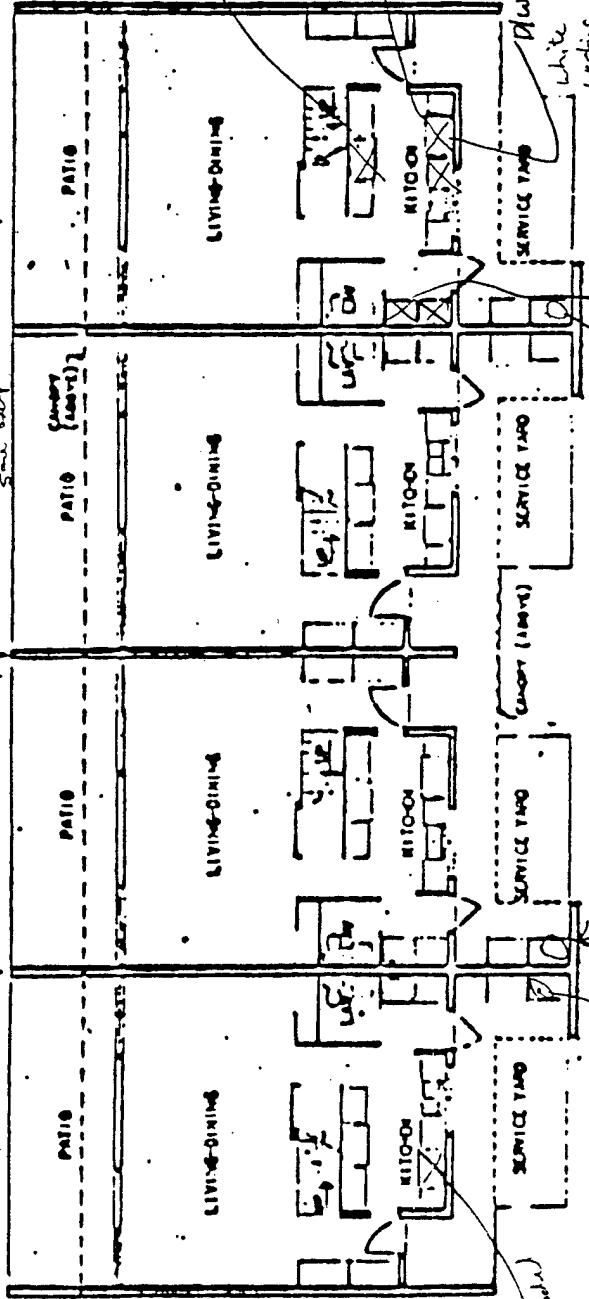
3713 B. <sup>2</sup> on white.  
Same as 3712.

← 3713 .D

Refing. - Gibson  
frost free

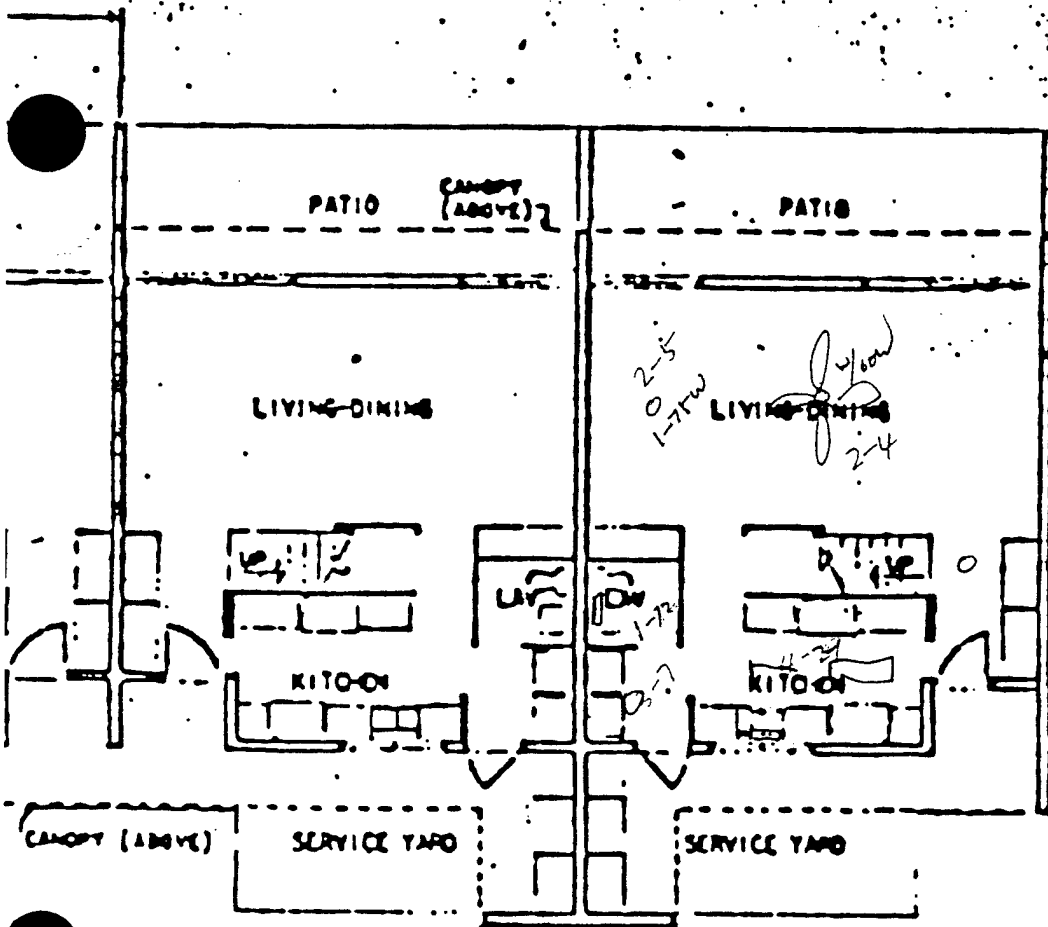
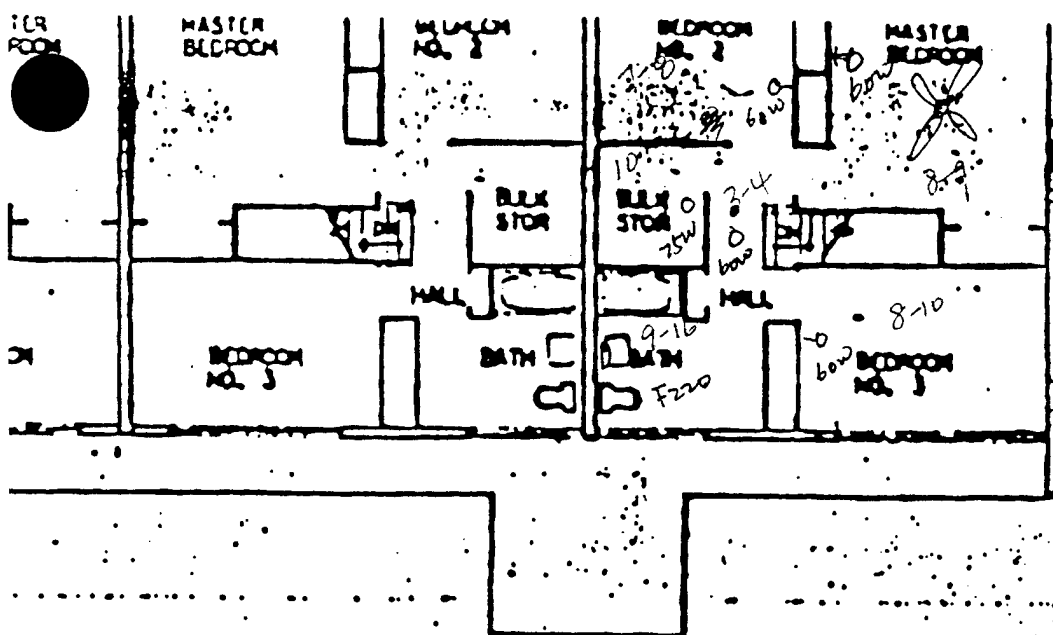
SEE 1176 A.M. 3-11-67 FOR LOCATION

Range - Verten ul Naton fan  
mudel 860  
Type 57-VI



EST. 1907  
1000 1000 1000

[illegible]



3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ~~ABCD~~

#### BUILDING NUMBERS

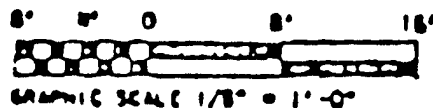
3430, 3608, 3704, 3713  
 3720, 3807

SEE SITE PLAN SHEET (67) FOR LOCATION

Type 57-VI

#### REVISIONS

|                                     |    |    |    |  |
|-------------------------------------|----|----|----|--|
| FAMILY HOUSING                      |    |    |    |  |
| BUDGETARY DATA FOR AIR CONDITIONING |    |    |    |  |
| CAPEHART HOUSING SCHOOL 195         |    |    |    |  |
| FIRST AND SECOND FLOOR PLANS        |    |    |    |  |
| SCHOOL BUILDINGS                    |    |    |    |  |
| U. S. ARMY ENGINEER DIVISION, PM    |    |    |    |  |
| COMPS OF ENGINEERS                  |    |    |    |  |
| HONOLULU, HAWAII                    |    |    |    |  |
| LOC. CODE 8270                      | 25 | 25 | 07 |  |





Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3713

Building Type: 57-VI

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 8

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

### Reflective Coating

Same as 57-III

a. Is System Supported from (check one):

Several Small Systems per Building

           Individual EWH/Unit

OF

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Insulation Thickness: \_\_\_\_\_

1) Condition of circular \_\_\_\_\_

2) Circulator capacity \_\_\_\_\_

3) Is aquastat provided?

4) Aquastat temperature setting \_\_\_\_\_

5) Mfg/Model \_\_\_\_\_

6) Electrical Data \_\_\_\_\_

a. Location \_\_\_\_\_

b. Areas Served \_\_\_\_\_

c.. Manufacturer and Model \_\_\_\_\_

d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

e. Type Heaters & Quantities:

1) Storage \_\_\_\_\_

2) Instantaneous

3) Semi-Instantaneous \_\_\_\_\_

f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

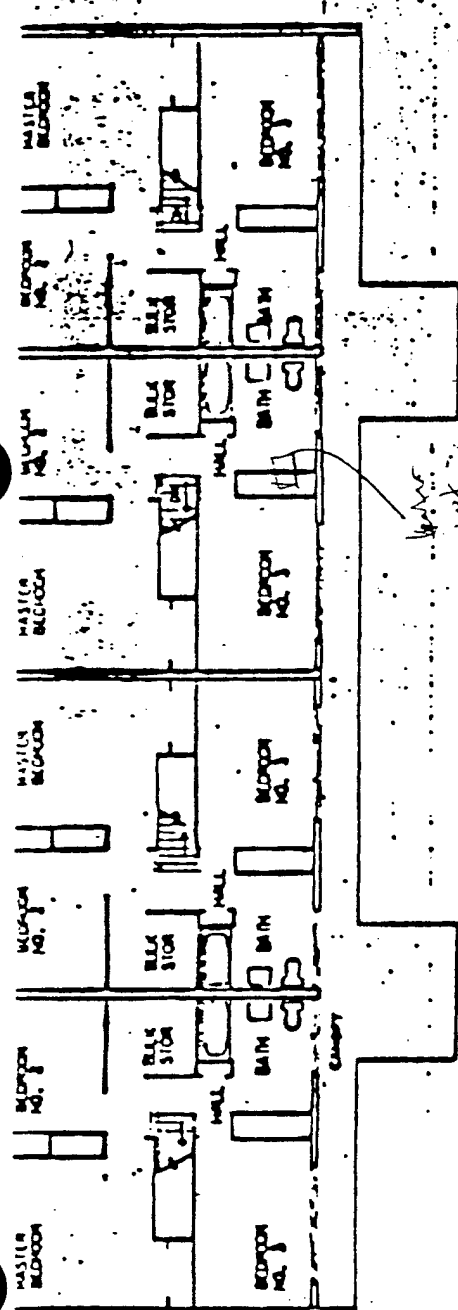
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture   | Flow   | Water Temp. | Remarks       |
|-----------|--------|-------------|---------------|
| Kit Sk    | 22/105 | 124         | Flow Rest. on |
| Shwr head | 52/105 | 114         |               |
|           |        |             |               |
|           |        |             |               |
|           |        |             |               |
|           |        |             |               |
|           |        |             |               |
|           |        |             |               |

Diff. Type

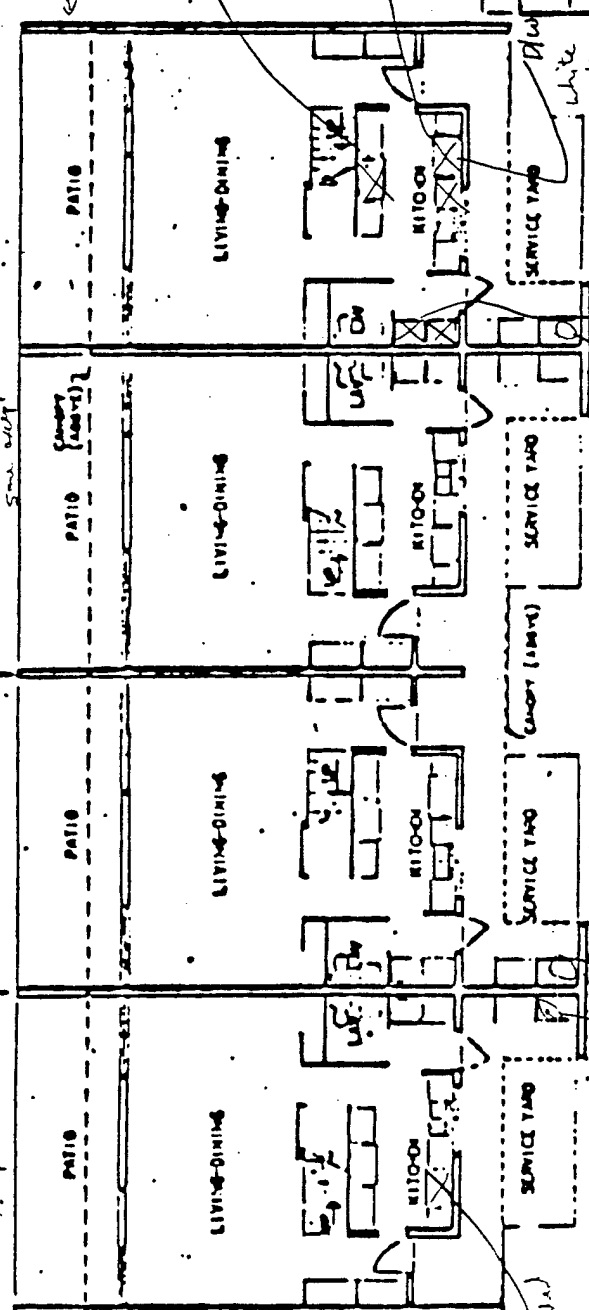


SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3704A  
Same except

LONG SCALE PLAN  
SEE TRAILER TYPE 3  
SEE UNIT 3

3713 B  
Same except



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

White  
Kitchen  
D N 40, 3T  
D N 40, 3T  
Scale  
Scale 1/8" = 1'-0"

← 3713  
D

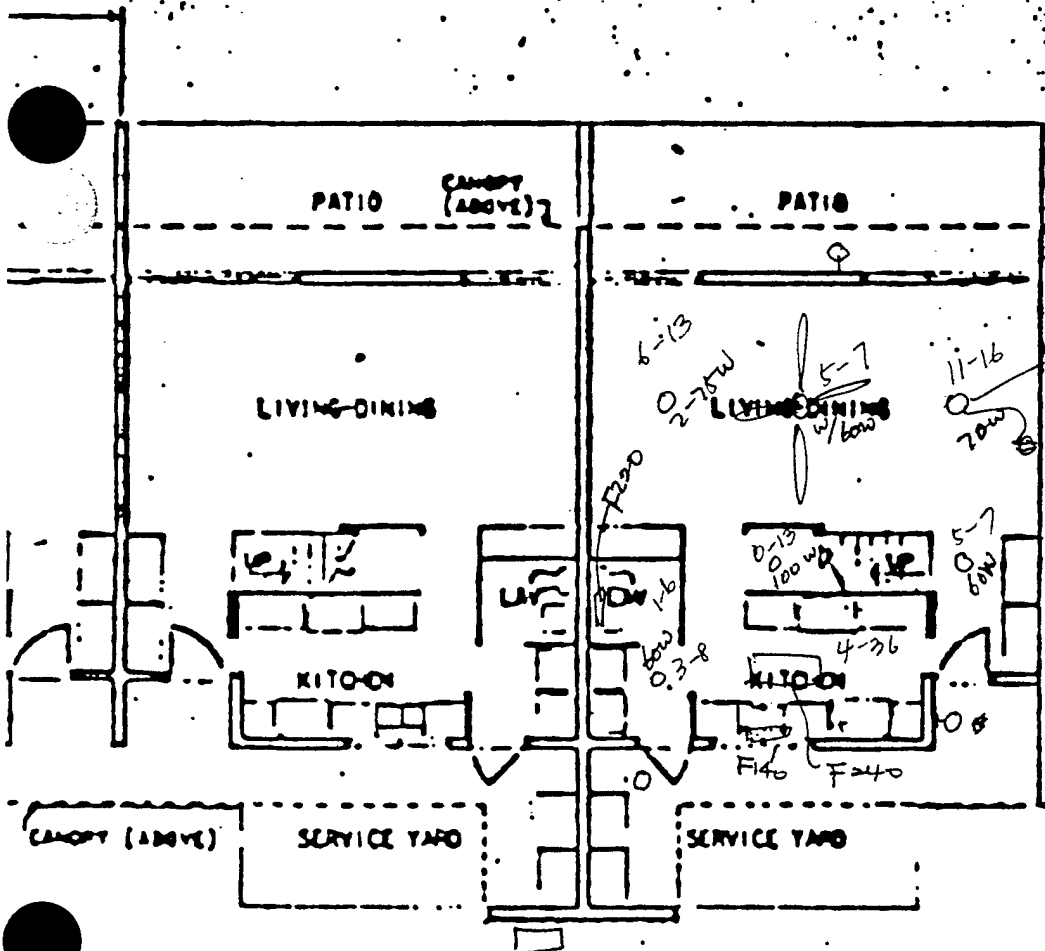
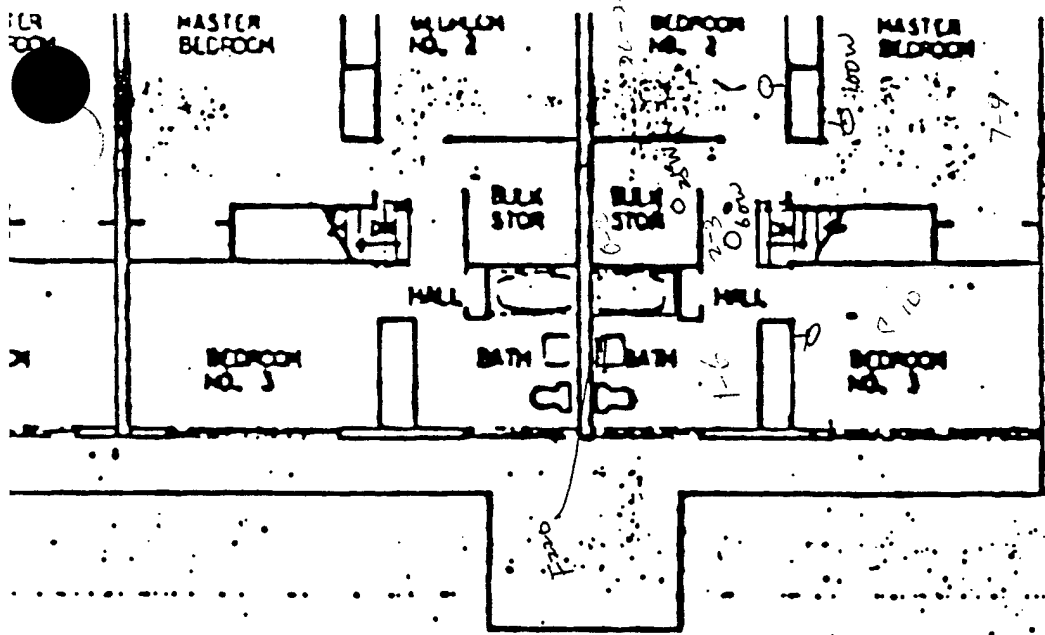
Refing - Gibson  
BUILDING NUMBER  
3430, 3400, 3700, 3713  
3720, 3800  
SEE SITE PLAN SHEET 17 FOR LOCATION

Range - Vector w/ Norton fan  
model 860  
Type 57-VI

| REVISIONS |          |      |    |
|-----------|----------|------|----|
| 1         | REVISION | DATE | BY |
| 1         | REVISION | DATE | BY |
| 2         | REVISION | DATE | BY |
| 3         | REVISION | DATE | BY |
| 4         | REVISION | DATE | BY |
| 5         | REVISION | DATE | BY |
| 6         | REVISION | DATE | BY |
| 7         | REVISION | DATE | BY |
| 8         | REVISION | DATE | BY |
| 9         | REVISION | DATE | BY |
| 10        | REVISION | DATE | BY |

UP bypassed.

MAY 1973

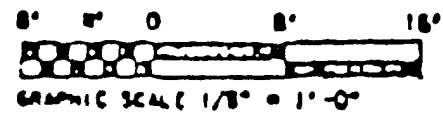


3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

*personal*

BUILDING NUMBERS  
 3430, 3608, 3704, 3713  
 3720, 3807  
 SEE SITE PLAN SHEET (67) FOR LOCATION

Type 57-VI



| REVISIONS                           |  |    |    |    |
|-------------------------------------|--|----|----|----|
| FAMILY HOUSING                      |  |    |    |    |
| BUDGETARY DATA FOR AIR CONDITIONING |  |    |    |    |
| CAPEHART HOUSING SCHOFIELD 195      |  |    |    |    |
| FIRST AND SECOND FLOOR PLANS        |  |    |    |    |
| SCHOFIELD BARRACKS                  |  |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM    |  |    |    |    |
| CORPS OF ENGINEERS                  |  |    |    |    |
| HONOLULU, HAWAII                    |  |    |    |    |
| LOC. CODE 8299                      |  | 25 | 25 | 07 |

UNIT TYPE 57-VII

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3430

Building Type: S7-V1

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 4

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 12

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

Same as 57-111

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

*Same as S.I.-III*

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| KIT SK  | 2 1/10 | 120         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

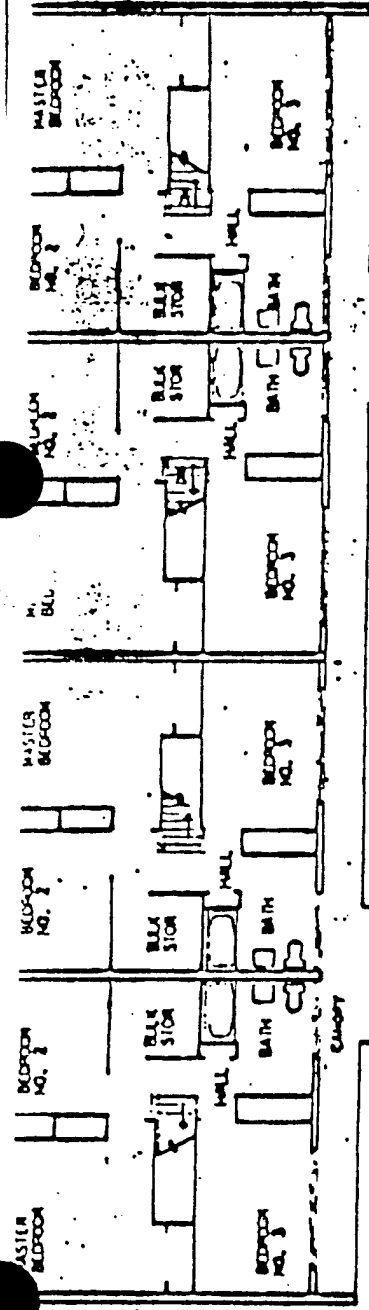
Diff. Tyner

← 3704: P  
same  
except  
as noted

BUILDING NUMBERS  
3430, 3400, 3700, 3713  
3720, 3800  
SEE SITE PLAN SHEET (1) FOR LOCATION

Type S7-VI

| REVISIONS |          |     |          |
|-----------|----------|-----|----------|
| 1         | REVISION | 2   | REVISION |
| 3         | REVISION | 4   | REVISION |
| 5         | REVISION | 6   | REVISION |
| 7         | REVISION | 8   | REVISION |
| 9         | REVISION | 10  | REVISION |
| 11        | REVISION | 12  | REVISION |
| 13        | REVISION | 14  | REVISION |
| 15        | REVISION | 16  | REVISION |
| 17        | REVISION | 18  | REVISION |
| 19        | REVISION | 20  | REVISION |
| 21        | REVISION | 22  | REVISION |
| 23        | REVISION | 24  | REVISION |
| 25        | REVISION | 26  | REVISION |
| 27        | REVISION | 28  | REVISION |
| 29        | REVISION | 30  | REVISION |
| 31        | REVISION | 32  | REVISION |
| 33        | REVISION | 34  | REVISION |
| 35        | REVISION | 36  | REVISION |
| 37        | REVISION | 38  | REVISION |
| 39        | REVISION | 40  | REVISION |
| 41        | REVISION | 42  | REVISION |
| 43        | REVISION | 44  | REVISION |
| 45        | REVISION | 46  | REVISION |
| 47        | REVISION | 48  | REVISION |
| 49        | REVISION | 50  | REVISION |
| 51        | REVISION | 52  | REVISION |
| 53        | REVISION | 54  | REVISION |
| 55        | REVISION | 56  | REVISION |
| 57        | REVISION | 58  | REVISION |
| 59        | REVISION | 60  | REVISION |
| 61        | REVISION | 62  | REVISION |
| 63        | REVISION | 64  | REVISION |
| 65        | REVISION | 66  | REVISION |
| 67        | REVISION | 68  | REVISION |
| 69        | REVISION | 70  | REVISION |
| 71        | REVISION | 72  | REVISION |
| 73        | REVISION | 74  | REVISION |
| 75        | REVISION | 76  | REVISION |
| 77        | REVISION | 78  | REVISION |
| 79        | REVISION | 80  | REVISION |
| 81        | REVISION | 82  | REVISION |
| 83        | REVISION | 84  | REVISION |
| 85        | REVISION | 86  | REVISION |
| 87        | REVISION | 88  | REVISION |
| 89        | REVISION | 90  | REVISION |
| 91        | REVISION | 92  | REVISION |
| 93        | REVISION | 94  | REVISION |
| 95        | REVISION | 96  | REVISION |
| 97        | REVISION | 98  | REVISION |
| 99        | REVISION | 100 | REVISION |

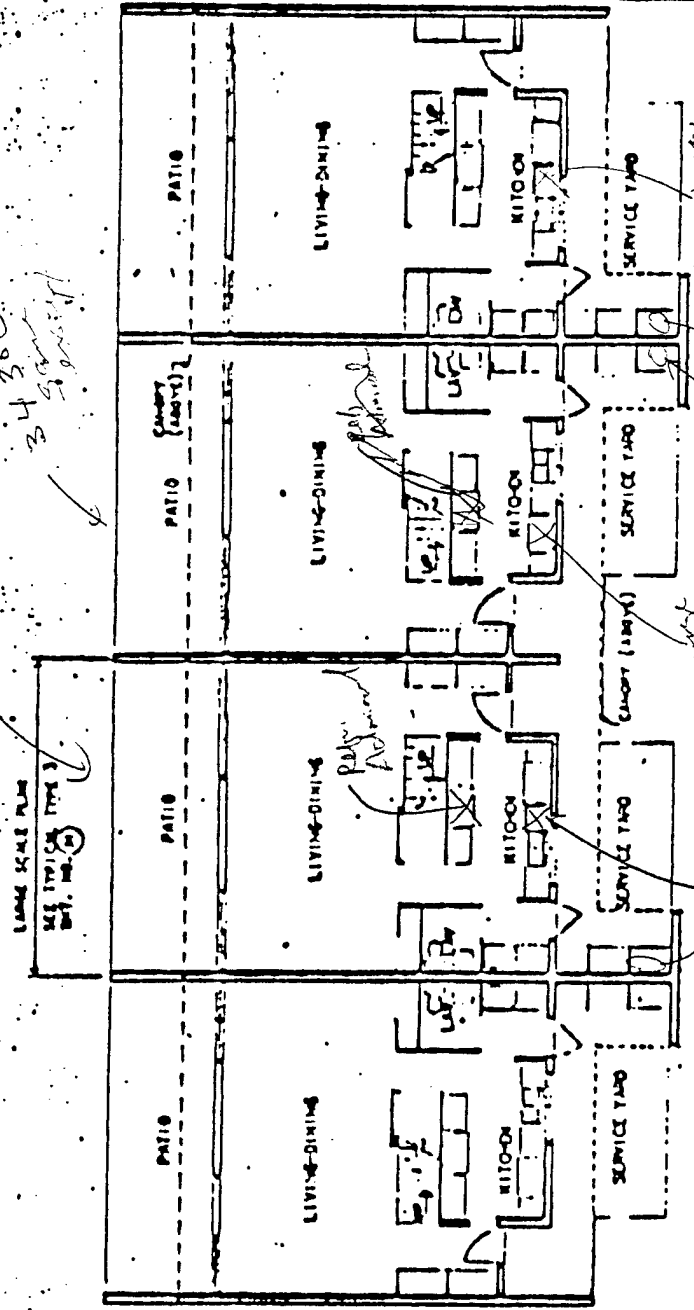


SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3430 B

3430 C  
3430 D  
3430 E

SEE SECTION TYPE 3  
SHEET 100-10

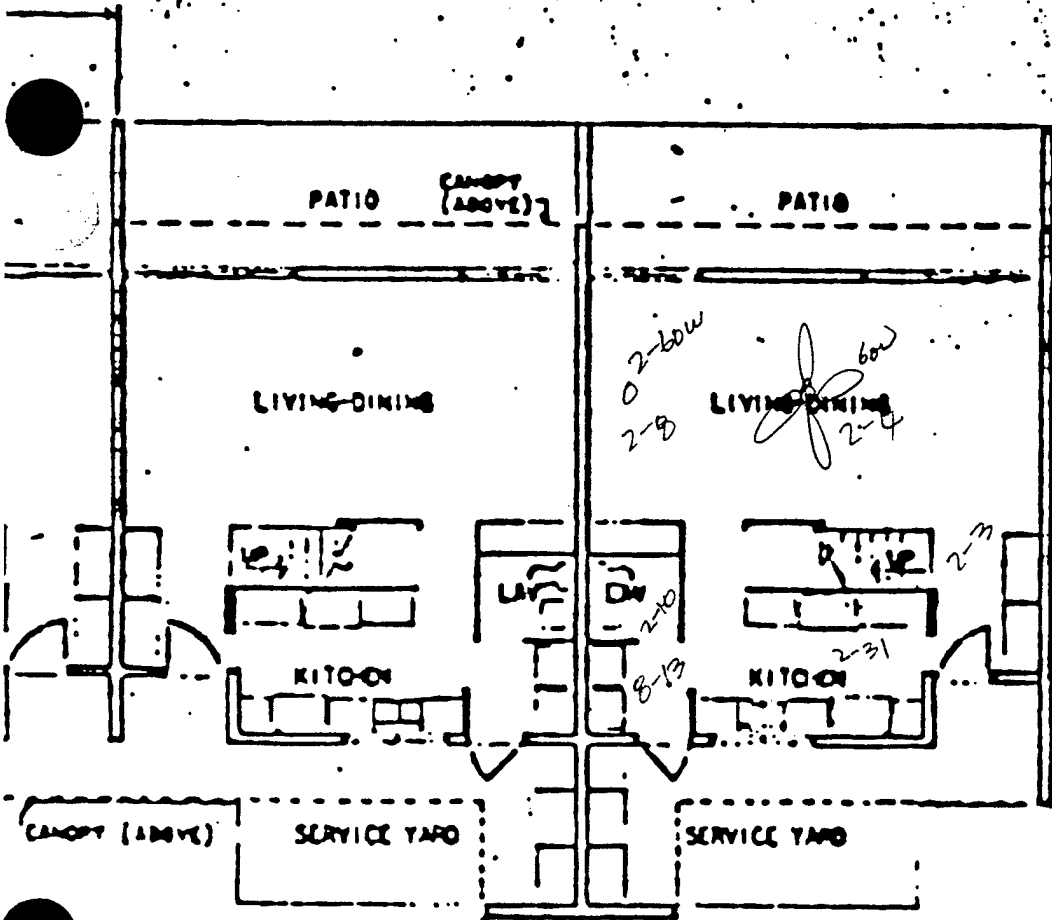
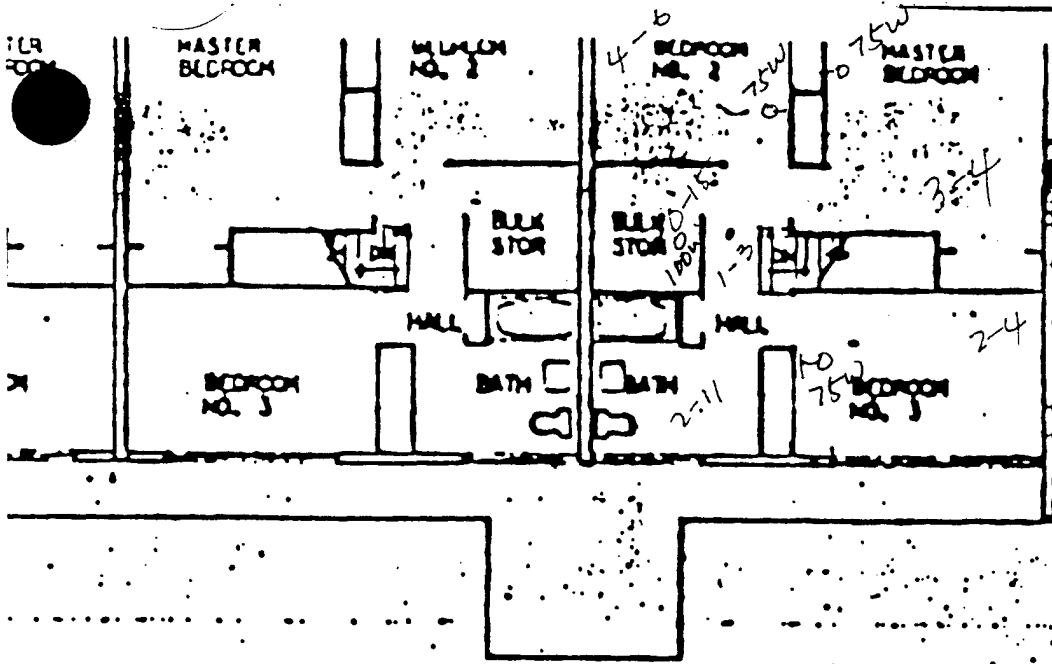


FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

same but  
working  
10' x 10'

MAY 1973

023



3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

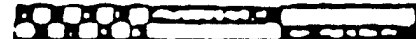
#### BUILDING NUMBERS

3430, 3608, 3704, 3713  
 3720, 3807

SEE SITE PLAN SHEET (07) FOR LOCATION

Type 57-VI

8' 0' 0' 8' 16'



GRAPHIC SCALE 1/8" = 1'-0"

#### REVISIONS

|   |    |    |    |
|---|----|----|----|
| FAMILY HOUSING                          |    |    |    |
| SUPPLEMENTARY DATA FOR AIR CONDITIONING |    |    |    |
| CAPEHART HOUSING SCHOFIELD 195          |    |    |    |
| FIRST AND SECOND FLOOR PLANS            |    |    |    |
| SCHOFIELD BARRACKS                      |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM        |    |    |    |
| CORPS OF ENGINEERS                      |    |    |    |
| HONOLULU, HAWAII                        |    |    |    |
| LOC. CODE 8290                          | 25 | 25 | 07 |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3430

Building Type: 57-V1

Apartment: C

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8

No. of Occupants: 3

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*Same as 57-III*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes / No  
Tinted  
Reflective Coating /

### 3.0 HOT WATER SYSTEM

*Same as 57-111*

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

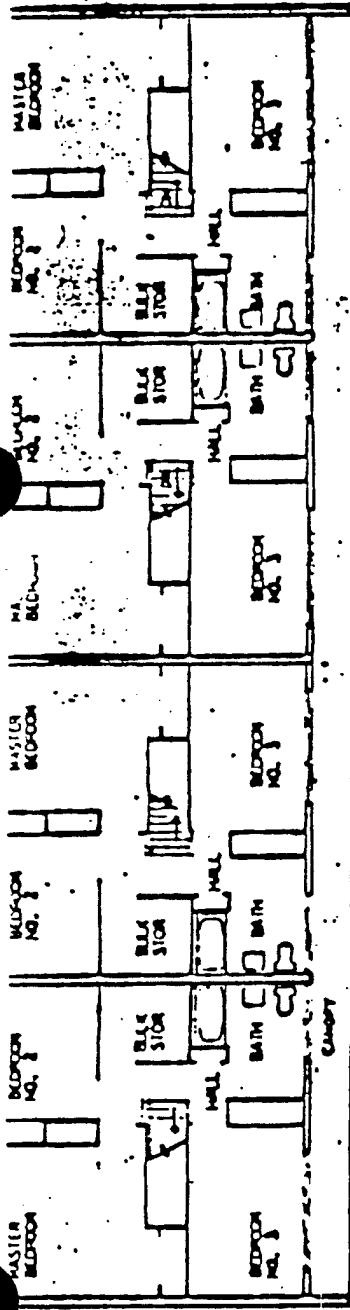
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| KIT SK  | 22/100 | 104         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

Disc. Type

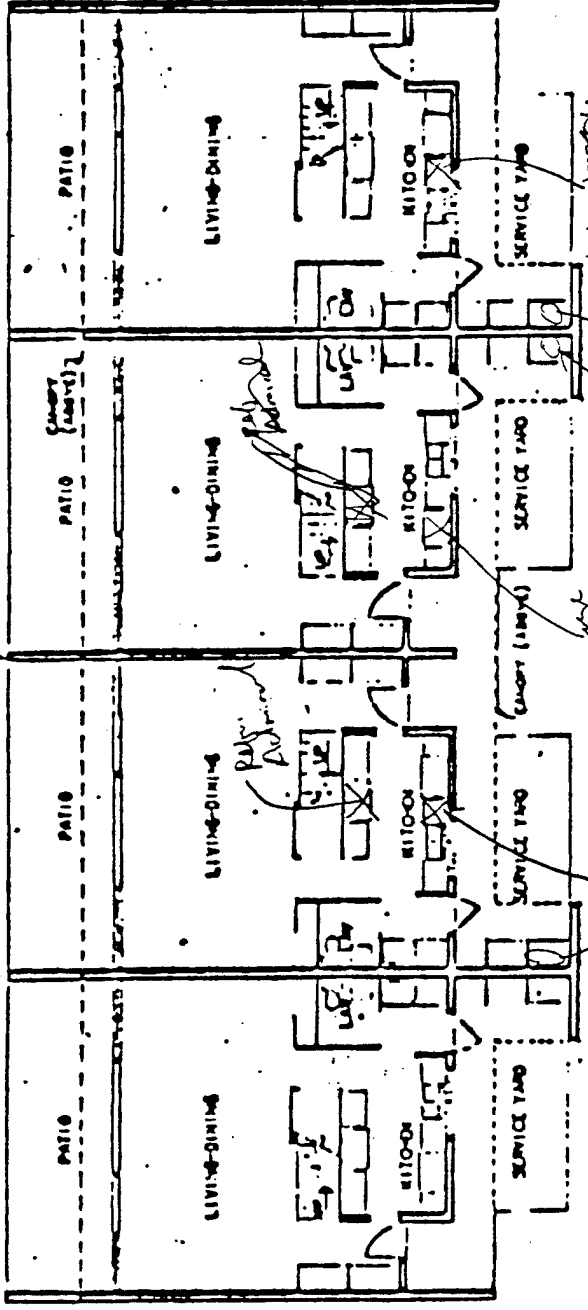


SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3430 B

3430 C  
3430 D  
3430 E

LARGE SCALE PLAN  
SEE SECTION TYPE 3  
BATH, HALL, KITCHEN



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

same but working white  
white

← 3704 D  
same except  
as noted

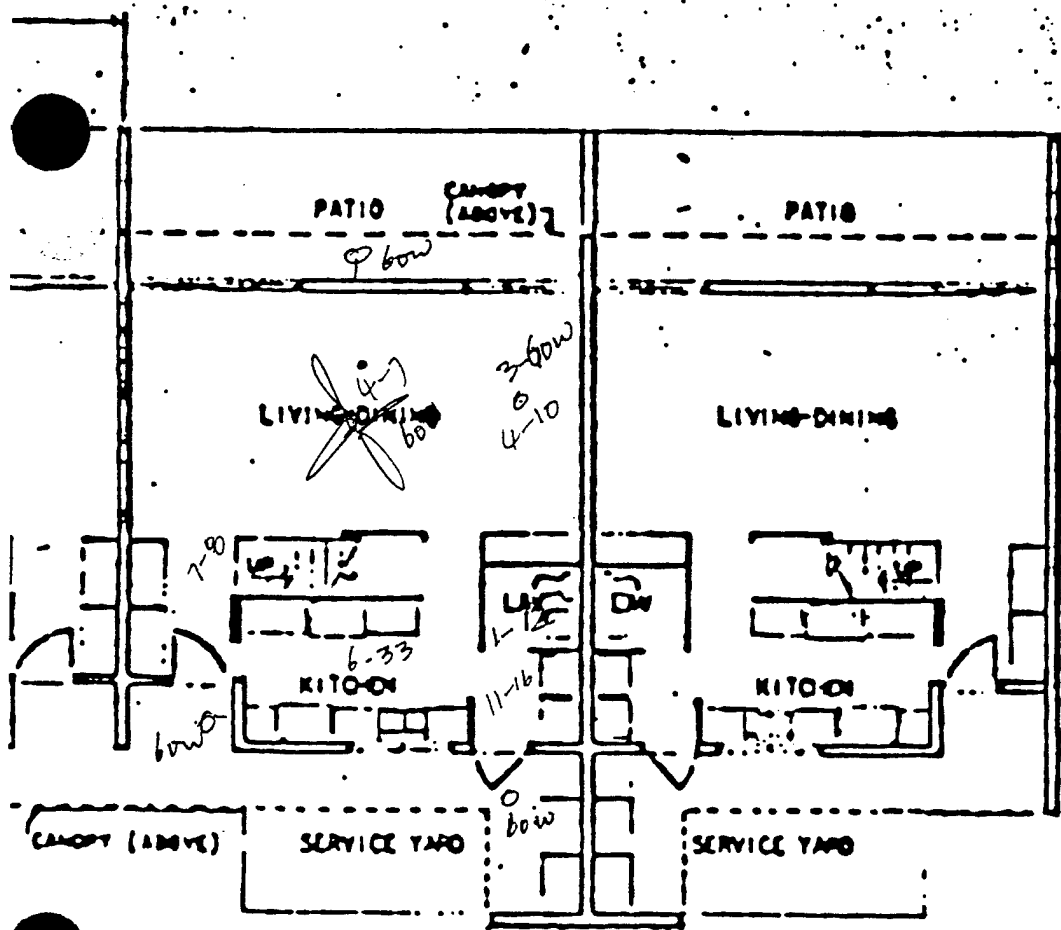
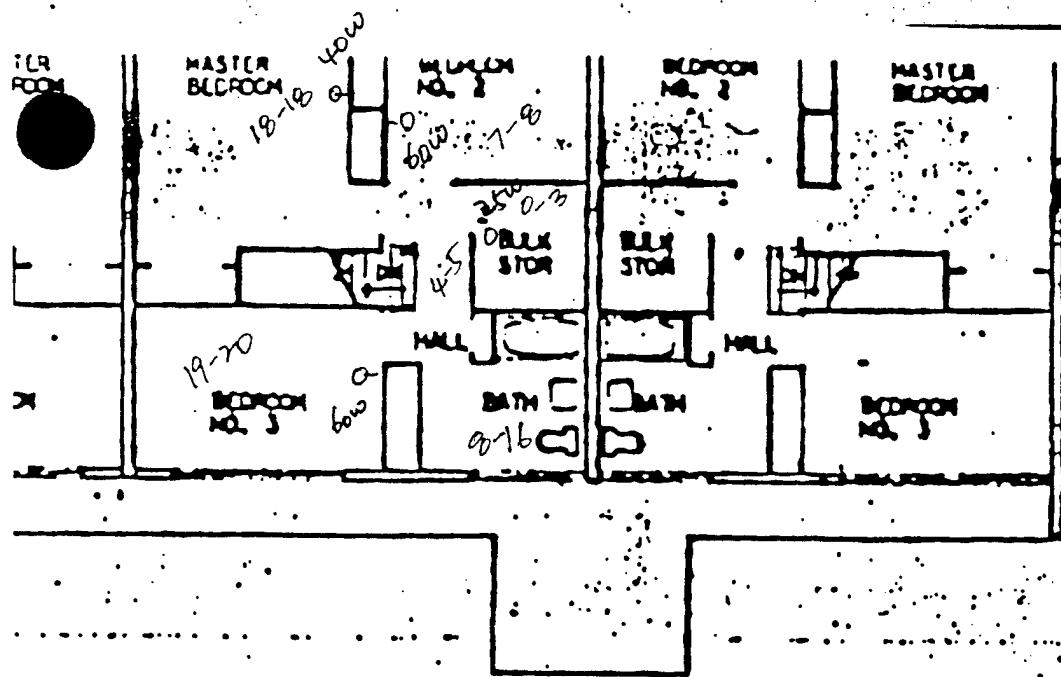
BUILDING NUMBER  
3430, 3432, 3704, 3712  
3720, 3722  
SEE SITE PLAN 3431 (1) FOR LOCATION

Type S7-VI

|  |           |
|--|-----------|
| REVISIONS                                      |           |
| 1  | REVISIONS |
| SUBMITTAL DATA FOR AIR CONDITIONING PROJECTS   |           |
| CAPITAL HOUSE BOOKS 1957 AREA 1-1              |           |
| FIRST AND SECOND FLOOR PLANS TYPE B            |           |
| SCHEDULE NUMBER                                |           |
| U. S. NAVY ENGINEERING DIVISION, PACIFIC OCEAN |           |
| COMPTON OF CALIFORNIA                          |           |
| MORRIS, MARRIS                                 |           |
| LOC. CODE 3430                                 | 25        |
| 23   | OF 27     |
| 10   | 10        |

MAY 1973

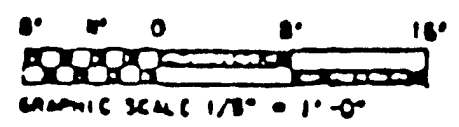
Q3



3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

BUILDING NUMBERS  
 3430, 3608, 3704, 3713  
 3720, 3807  
 SEE SITE PLAN SHEET (07) FOR LOCATION

Type 57-VI



| REVISIONS                           |    |    |    |
|-------------------------------------|----|----|----|
| FAMILY HOUSING                      |    |    |    |
| BUDGETARY DATA FOR AIR CONDITIONING |    |    |    |
| CAPEHART HOUSING SOCIETY 195        |    |    |    |
| FIRST AND SECOND FLOOR PLANS        |    |    |    |
| SCHOFIELD BARRACKS                  |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM    |    |    |    |
| CORPS OF ENGINEERS                  |    |    |    |
| HONOLULU, HAWAII                    |    |    |    |
| LOC. CODE 9270                      | 25 | 23 | 07 |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3704

Building Type: 57-VI

Apartment: A

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 5

Average No. of Showers/Day: ~ 3

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

Reflective Coating

*Same as 57-III*

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building

       Several Small Systems per Building

       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

1) Condition of circulator       

2) Circulator capacity       

3) Is aquastat provided?       

4) Aquastat temperature setting       

5) Mfg/Model       

6) Electrical Data       

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location       

b. Areas Served       

c. Manufacturer and Model       

d. Energy (Oil, Gas, Electric, Coal, Etc.)       

e. Type Heaters & Quantities:

1) Storage       

2) Instantaneous       

3) Semi-Instantaneous       

f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

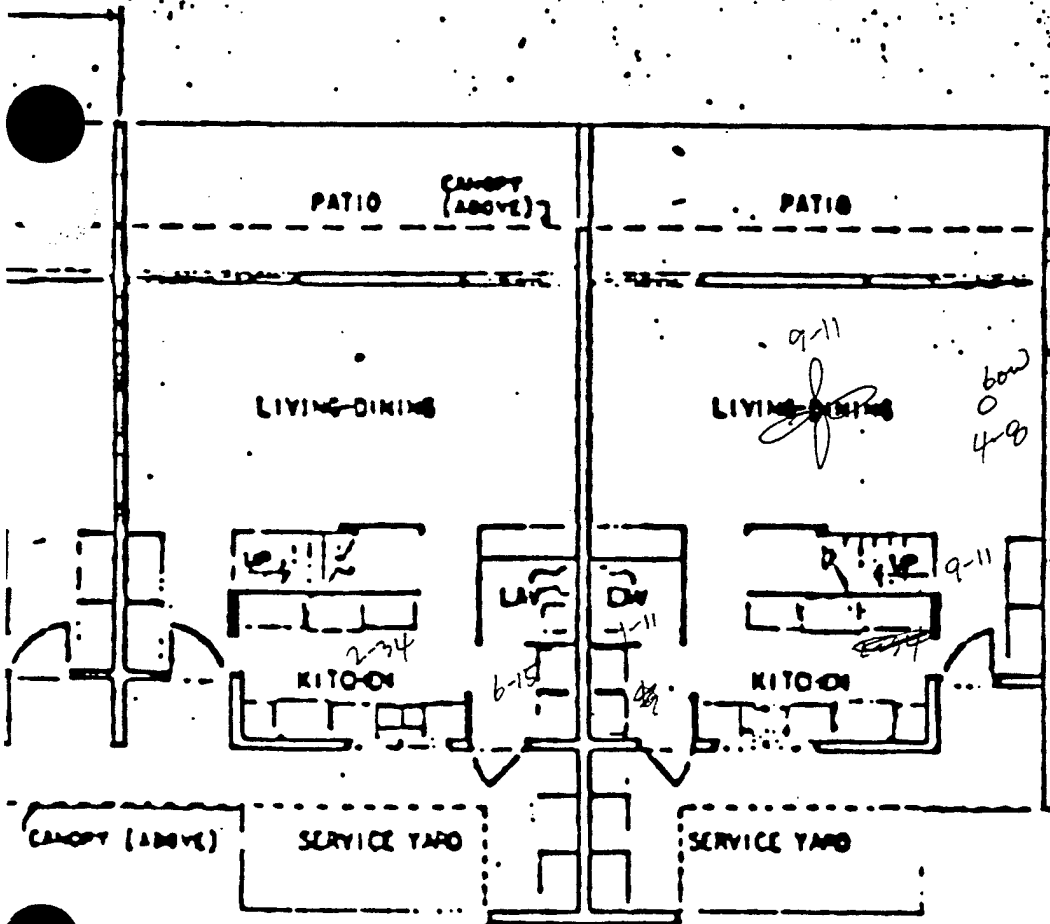
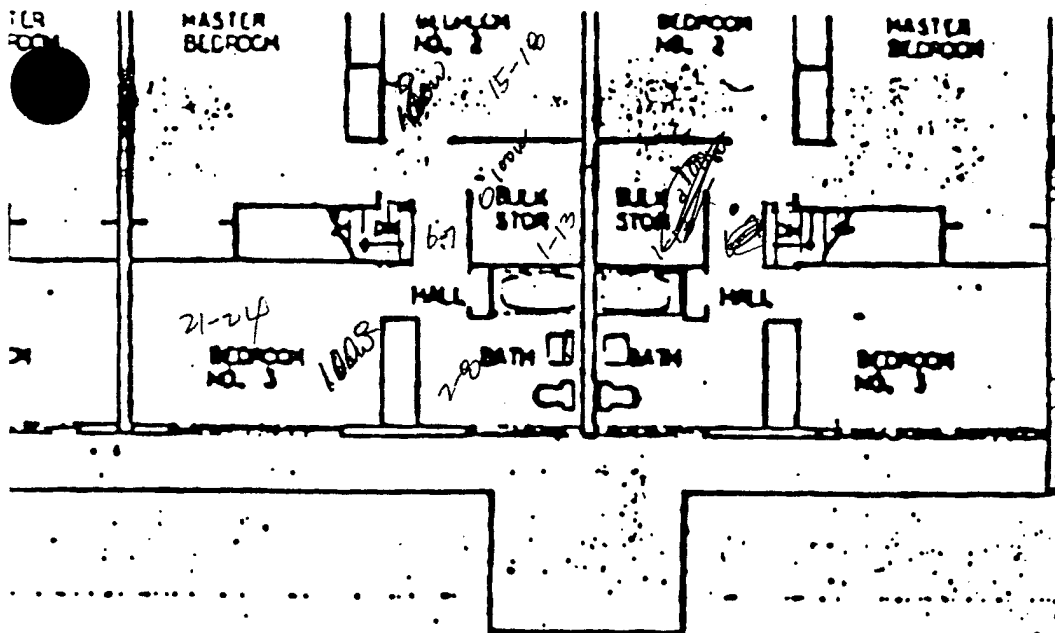
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow | Water Temp. | Remarks |
|---------|------|-------------|---------|
| Kit. SK | 2L   | 120         |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |
|         |      |             |         |







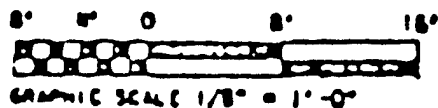
3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

#### BUILDING NUMBERS

3430, 3608, 3704, 3713  
 3720, 3807

SEE SITE PLAN SHEET (07) FOR LOCATION

Type 57-VI



#### REVISIONS

|   |    |    |    |
|---|----|----|----|
| FAMILY HOUSING                          |    |    |    |
| SUPPLEMENTARY DATA FOR AIR CONDITIONING |    |    |    |
| CAPEHART HOUSING SCOTFIELD 195          |    |    |    |
| FIRST AND SECOND FLOOR PLANS            |    |    |    |
| SCOTFIELD BARRACKS                      |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM        |    |    |    |
| COMPS OF ENGINEERS                      |    |    |    |
| HONOLULU, HAWAII                        |    |    |    |
| LOC. CODE 9270                          | 25 | 23 | 07 |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3704

Building Type: 57-VI

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8 from 5 pm

No. of Occupants: 5

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 2

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-HI

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

### Reflective Coating

### 3.0 HOT WATER SYSTEM

same as  $57 - \frac{11}{11}$

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant                             One System per Building

       Several Small Systems per Building

\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
OF

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

1) Condition of circular \_\_\_\_\_

2) Circulator capacity \_\_\_\_\_

3) Is aquastat provided?

4) Aquastat temperature setting \_\_\_\_\_

5) Mfg/Model \_\_\_\_\_

6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location \_\_\_\_\_

b. Areas Served \_\_\_\_\_

c.. Manufacturer and Model \_\_\_\_\_

d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

e. Type Heaters & Quantities:

1) Storage \_\_\_\_\_

2) Instantaneous \_\_\_\_\_

3) Semi-Instantaneous \_\_\_\_\_

f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit SK  | 24/105 | 120         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

Disc. Type

3704 D  
Same except  
as noted

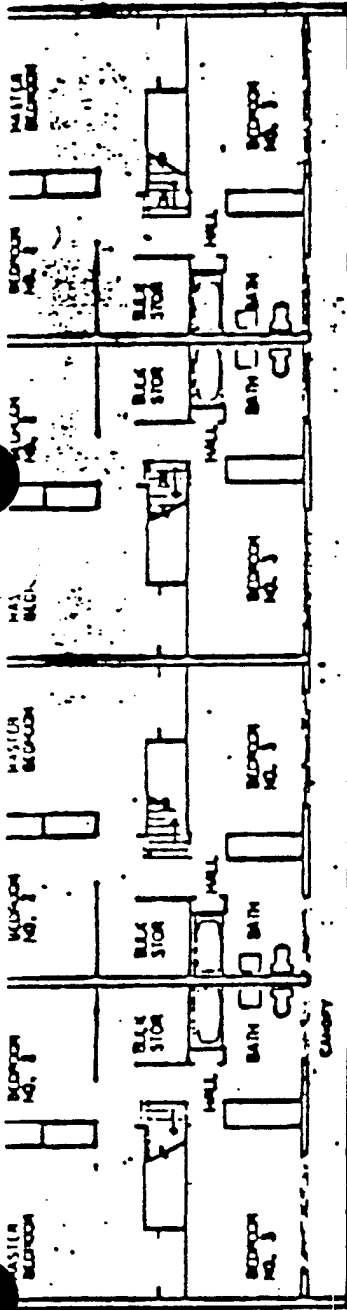
BUILDING NUMBER  
3430, 3408, 3708, 3718  
3720, 3409  
SEE SITE PLAN SHEET (D) FOR LOCATION

Type S7-VI

| REVISIONS |          |      |    |
|-----------|----------|------|----|
| 1         | REVISION | DATE | BY |
| 1         | REVISION | DATE | BY |
| 2         | REVISION | DATE | BY |
| 3         | REVISION | DATE | BY |
| 4         | REVISION | DATE | BY |
| 5         | REVISION | DATE | BY |
| 6         | REVISION | DATE | BY |
| 7         | REVISION | DATE | BY |
| 8         | REVISION | DATE | BY |
| 9         | REVISION | DATE | BY |
| 10        | REVISION | DATE | BY |

MAP 1373

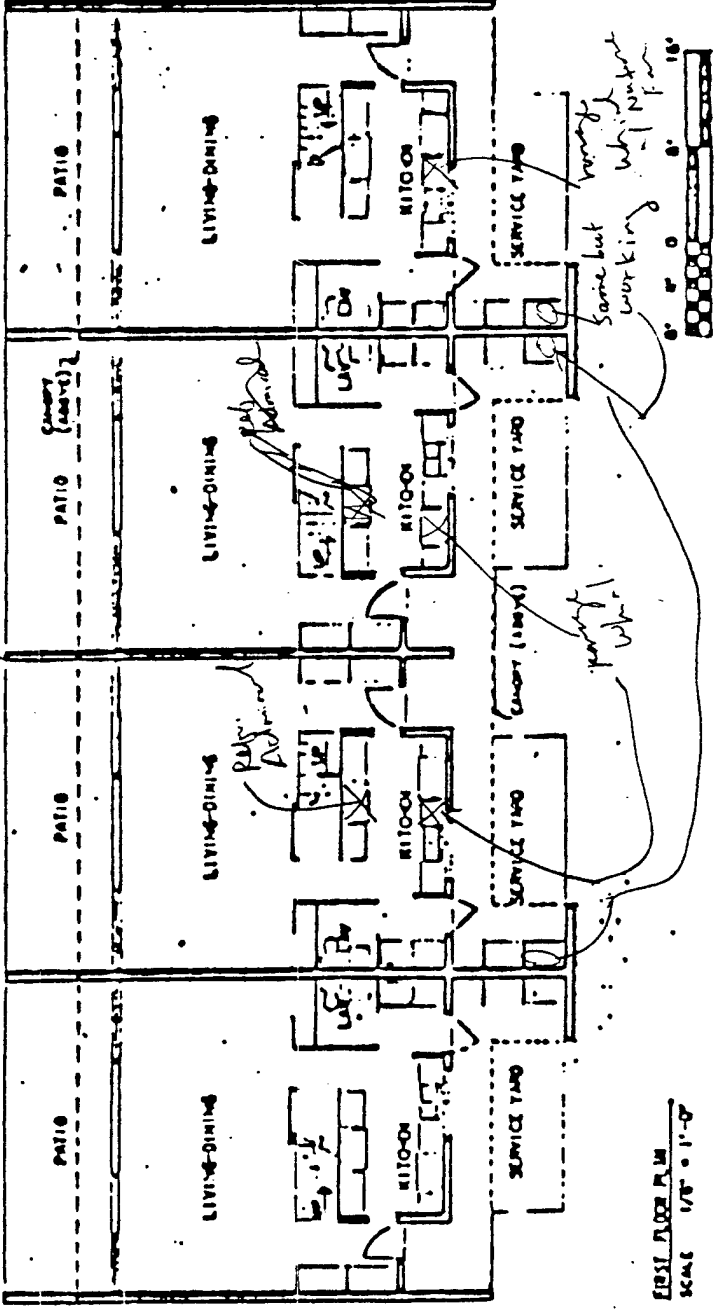
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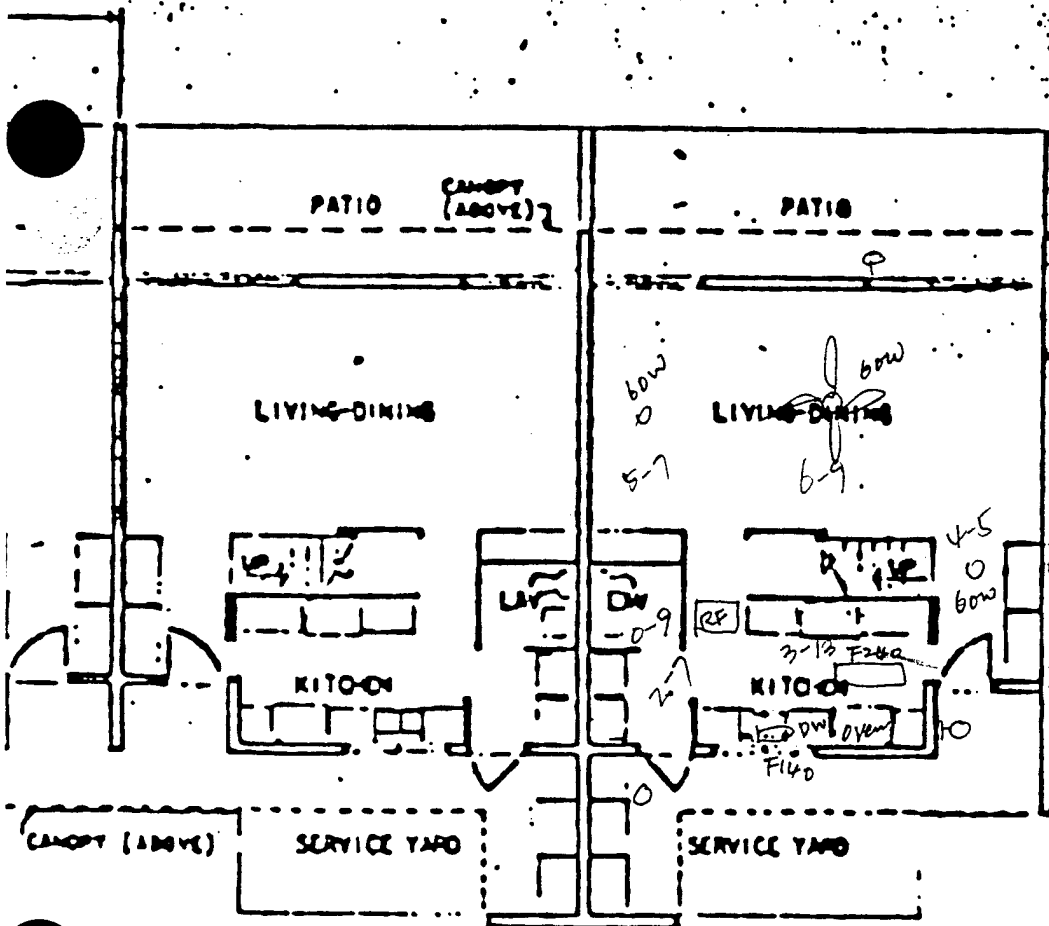
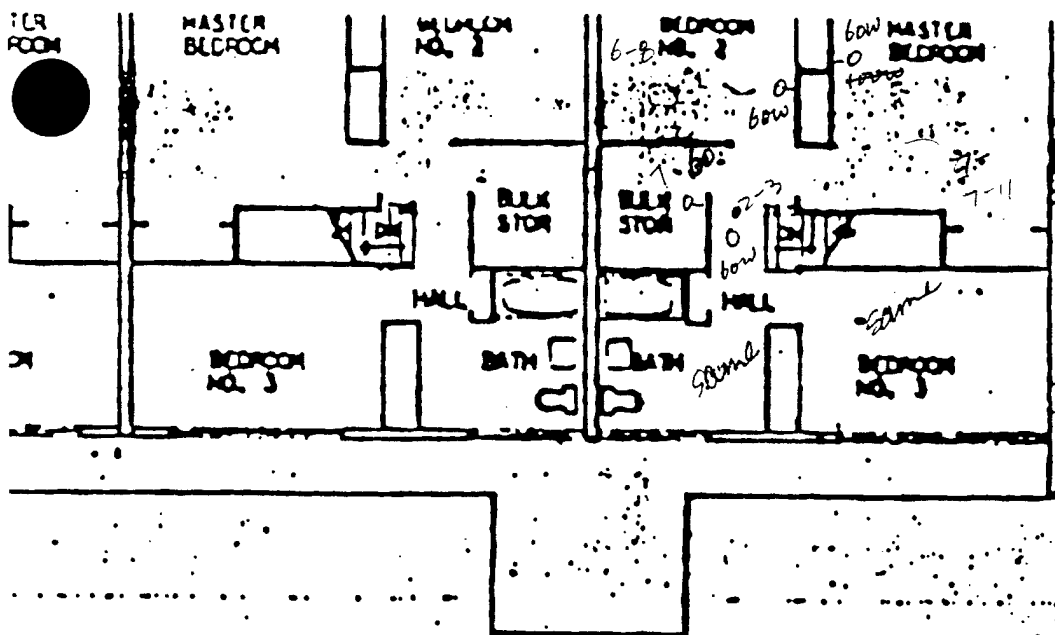


3430 B

SEE SITE PLAN TYPE 3  
SHEET NO. 3

3430 C  
3430 D  
3430 E





3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

#### BUILDING NUMBERS

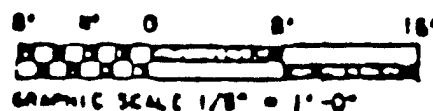
3430, 3608, 3704, 3713  
 3720, 3807

SEE SITE PLAN SHEET (67) FOR LOCATION

Type 57-VI

#### REVISIONS

|                                     |    |    |    |
|-------------------------------------|----|----|----|
| FAMILY HOUSING                      |    |    |    |
| BUDGETARY DATA FOR AIR CONDITIONING |    |    |    |
| CAPEHART HOUSING SCHOOL 195         |    |    |    |
| FIRST AND SECOND FLOOR PLANS        |    |    |    |
| SCHOOL BUILDINGS                    |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM    |    |    |    |
| COMPS OF ENGINEERS                  |    |    |    |
| HONOLULU, HAWAII                    |    |    |    |
| LOC. CODE 8270                      | 25 | 25 | 07 |



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3713

Building Type: 57-VI

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 3

Average No. of Showers/Day: 2

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

Same as 37-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

### Reflective Coating

Same as SM-III

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

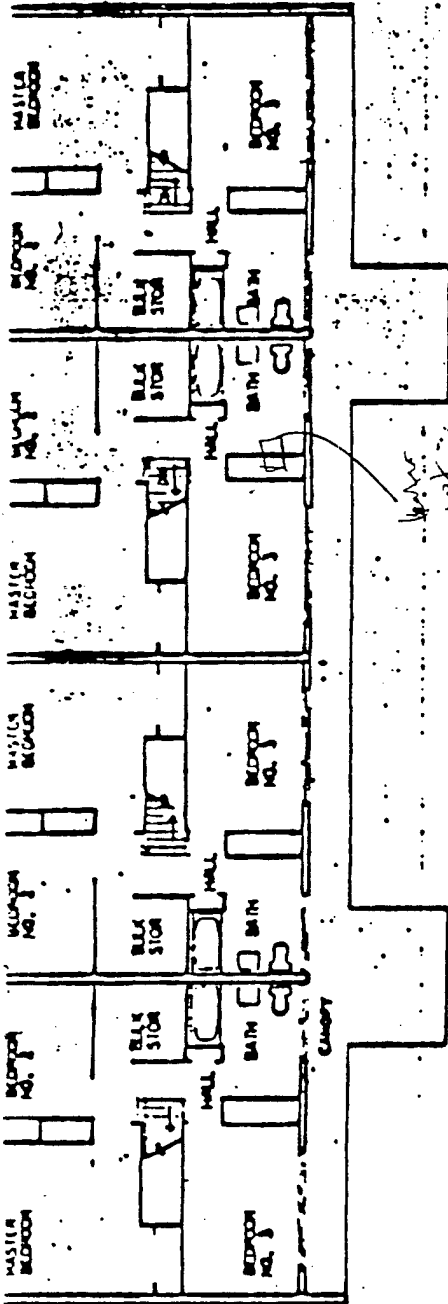
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks          |
|---------|--------|-------------|------------------|
| Kit Sk. | 22/105 | 98          | Doing Wash w/ Hw |
| Shwr    | 32/105 | —           |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |
|         |        |             |                  |



3704A  
same except

3713 B. w. white.  
same except

← 3713 .D

— Refrig. — Gibson  
Frost free

171-1  
170.  
169.  
168.  
167.

SEE 117C 2118 175 175 FOR LOCATION

Range - Verten ul Norton fann  
 Type 57-VI  
 model 860

**1-800-368-2868**

## Highly Active

SOCIAL DATA FOR AIR CONDITIONING PROJECTS  
 CAPITAL HOUSING PROJECTS 1967 MAY 1-11  
 FIRST AND SECOND FLOOR 1967 MAY 1-11

1963

• **2007-08-01**

100-100000  
BUTTERFLY AND LARVAE  
MAY 1968

五、六、七、八

三

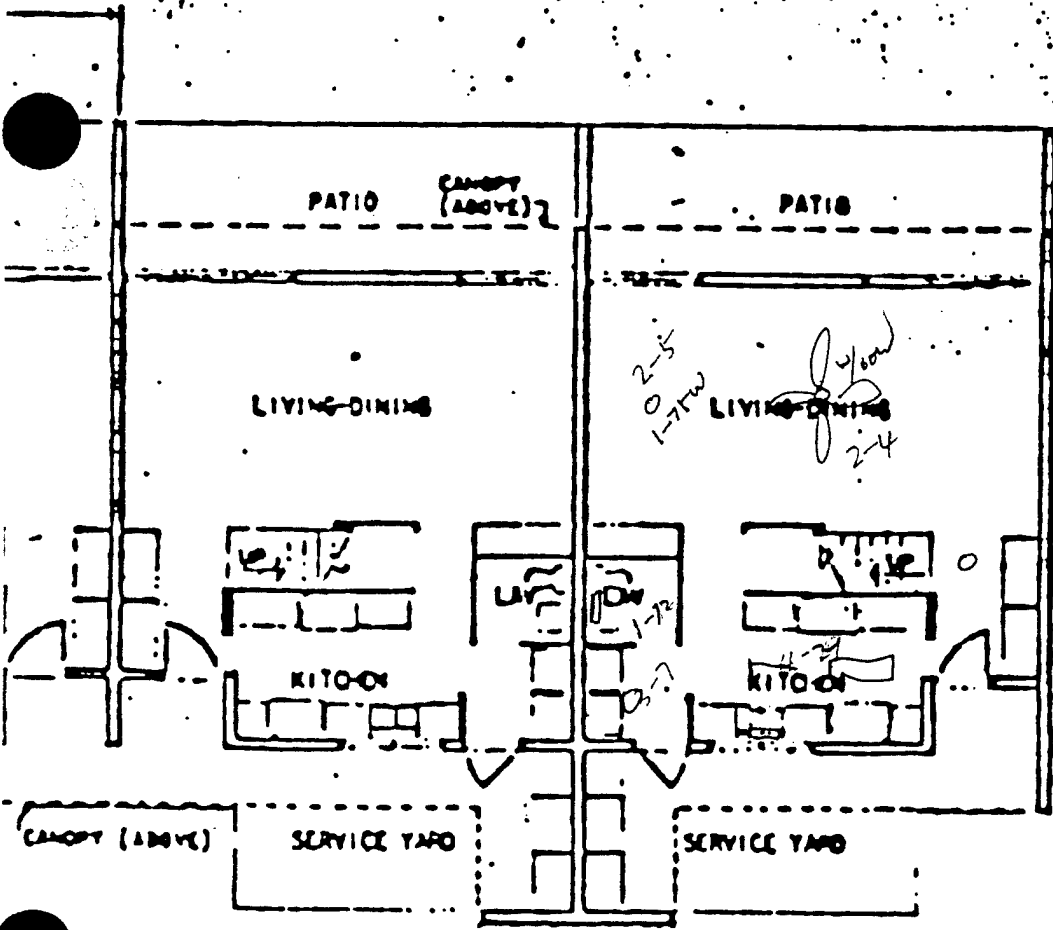
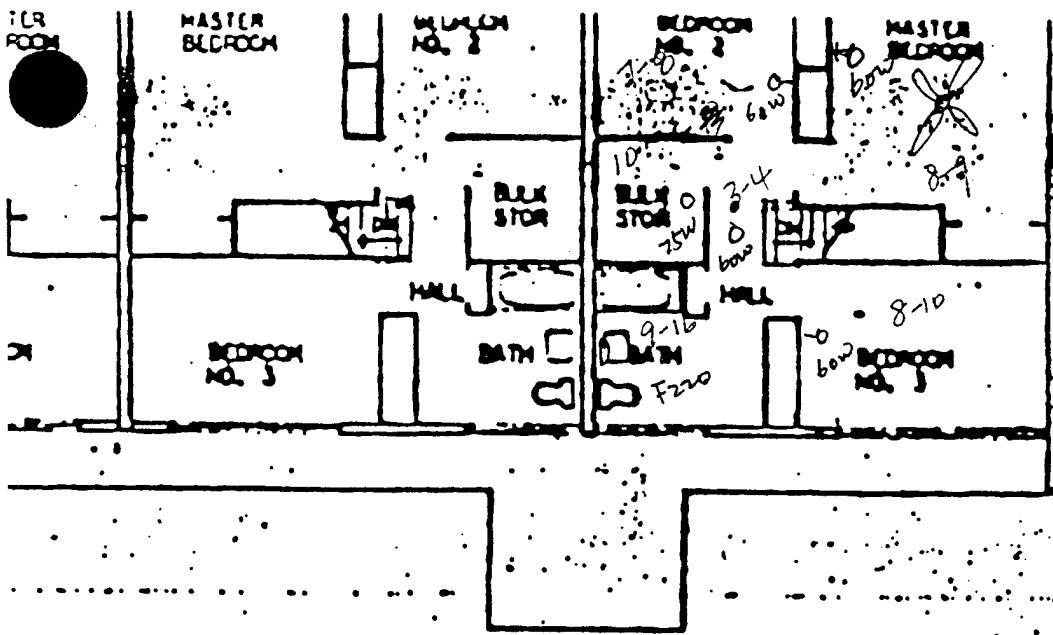
3

1

100

100

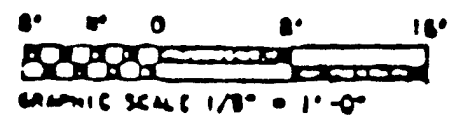
10



3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713. ~~ABCD~~

BUILDING NUMBERS  
 3430, 3608, 3704, 3713  
 3720, 3807  
 SEE SITE PLAN SHEET (67) FOR LOCATION

Type 57-VI



| REVISIONS                           |  |    |    |    |
|-------------------------------------|--|----|----|----|
| FAMILY HOUSING                      |  |    |    |    |
| BUDGETARY DATA FOR AIR CONDITIONING |  |    |    |    |
| CAPEHART HOUSING SCHOFIELD 195      |  |    |    |    |
| FIRST AND SECOND FLOOR PLANS        |  |    |    |    |
| SCHOFIELD BARRACKS                  |  |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM    |  |    |    |    |
| COMPS OF ENGINEERS                  |  |    |    |    |
| HONOLULU, HAWAII                    |  |    |    |    |
| LOC. CODE 8779                      |  | 25 | 25 | 07 |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

# ENERGY SAVINGS OPPORTUNITY SURVEY FORM

## 1.0 GENERAL INFORMATION

Building No.: 3713

Building Type: 57-VI

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 8

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture   | Flow   | Water Temp. | Remarks        |
|-----------|--------|-------------|----------------|
| Kit Sk.   | 22/105 | 124         | Flow Restr. on |
| Shwr head | 52/105 | 114         |                |
|           |        |             |                |
|           |        |             |                |
|           |        |             |                |
|           |        |             |                |
|           |        |             |                |
|           |        |             |                |

The floor plan shows a symmetrical layout with four identical suites arranged around a central corridor. Each suite consists of a Master Bedroom, a second Bedroom, a Bath, and a Dressing Room. The entrance to the suites is through a large room at the top right, which also contains a desk and chair. A central hallway provides access to each suite. The plan is labeled 'WHITE HOUSE' at the top and 'SECOND FLOOR' at the bottom.

ΣΧΟΛΗ ΑΝΘΡΩΠΙΝΩΝ ΕΠΙΣΤΗΜΩΝ

3704A  
same except

三  
三

3713 B. 100 miles.  
Some away

← 3713 .D

— Refrig. — Gibson  
Frost Free

170. 171. 172. 173.

SEE SITE PLAN SHEET 07 FOR LOCATION

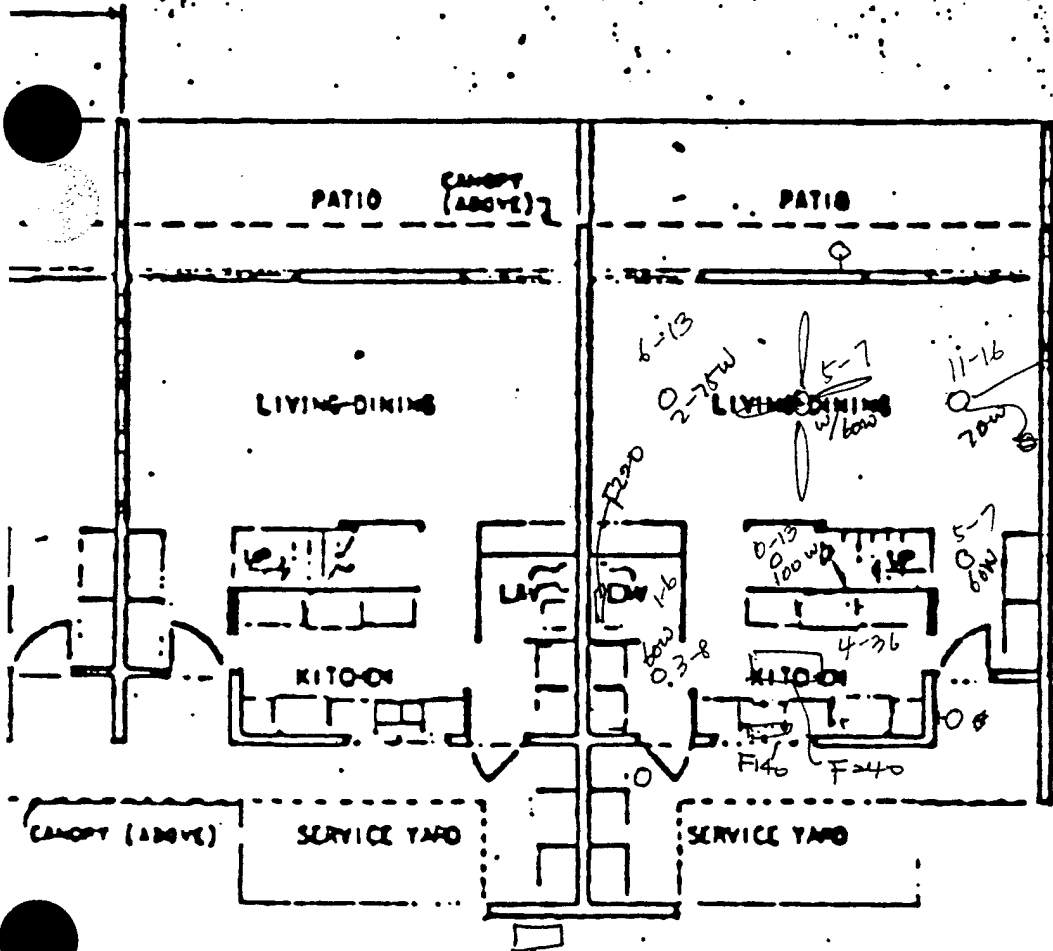
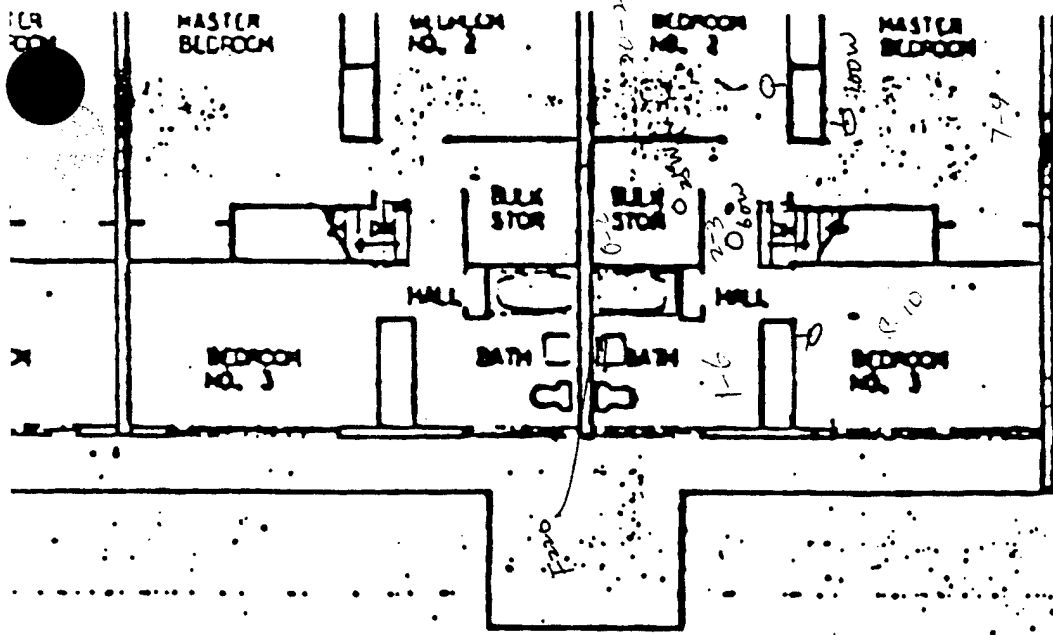
Range - Verten w/ Naturdon  
müdel 80  
Type 57-VI

|  |    |            |            |
|--|----|------------|------------|
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS<br>CAPMANT HOUSING SOCIETY 1957 AND 1958<br>FIRST AND SECOND FLOOR PLANS TYPE B |    |            |            |
| BUDGETARY DATA   |    | DATE, 1958 |            |
| U. S. ARMY ENGINEERING DIVISION, PACIFIC OCEAN<br>CORPS OF ENGINEERS<br>HONOLULU, HAWAII                                     |    |            |            |
| LOC CODE 8470  | 25 | 23         | OF 307, 10 |

**Case: 1**

up bypassed.

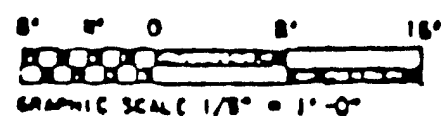
五



3430 ABCD  
 3608 ABCD  
 3704 ABCD  
 3713 ABCD

BUILDING NUMBERS  
 3430, 3608, 3704, 3713  
 3720, 3807  
 SEE SITE PLAN SHEET (07) FOR LOCATION

Type 57-VI



| REVISIONS                           |    |    |    |
|-------------------------------------|----|----|----|
| FAMILY HOUSING                      |    |    |    |
| BUDGETARY DATA FOR AIR CONDITIONING |    |    |    |
| CAPEHART HOUSING SCHOFIELD 125      |    |    |    |
| FIRST AND SECOND FLOOR PLANS        |    |    |    |
| SCHOFIELD BARRACKS                  |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PM    |    |    |    |
| COMPS OF ENGINEERS                  |    |    |    |
| HONOLULU, HAWAII                    |    |    |    |
| LOC. CODE 8770                      | 25 | 25 | 07 |

UNIT TYPE 57-VII

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3900

Building Type: 57-VII

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: after 5 pm

No. of Occupants: 2

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: Not used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

### Reflective Coating

Same as 57-III

### 3.0 HOT WATER SYSTEM

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

           Central Plant                                 One System per Building

### Several Small Systems per Building

\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location \_\_\_\_\_

b. Areas Served \_\_\_\_\_

c.. Manufacturer and Model \_\_\_\_\_

d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

e. Type Heaters & Quantities:

- 1) Storage \_\_\_\_\_
- 2) Instantaneous \_\_\_\_\_
- 3) Semi-Instantaneous \_\_\_\_\_

f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

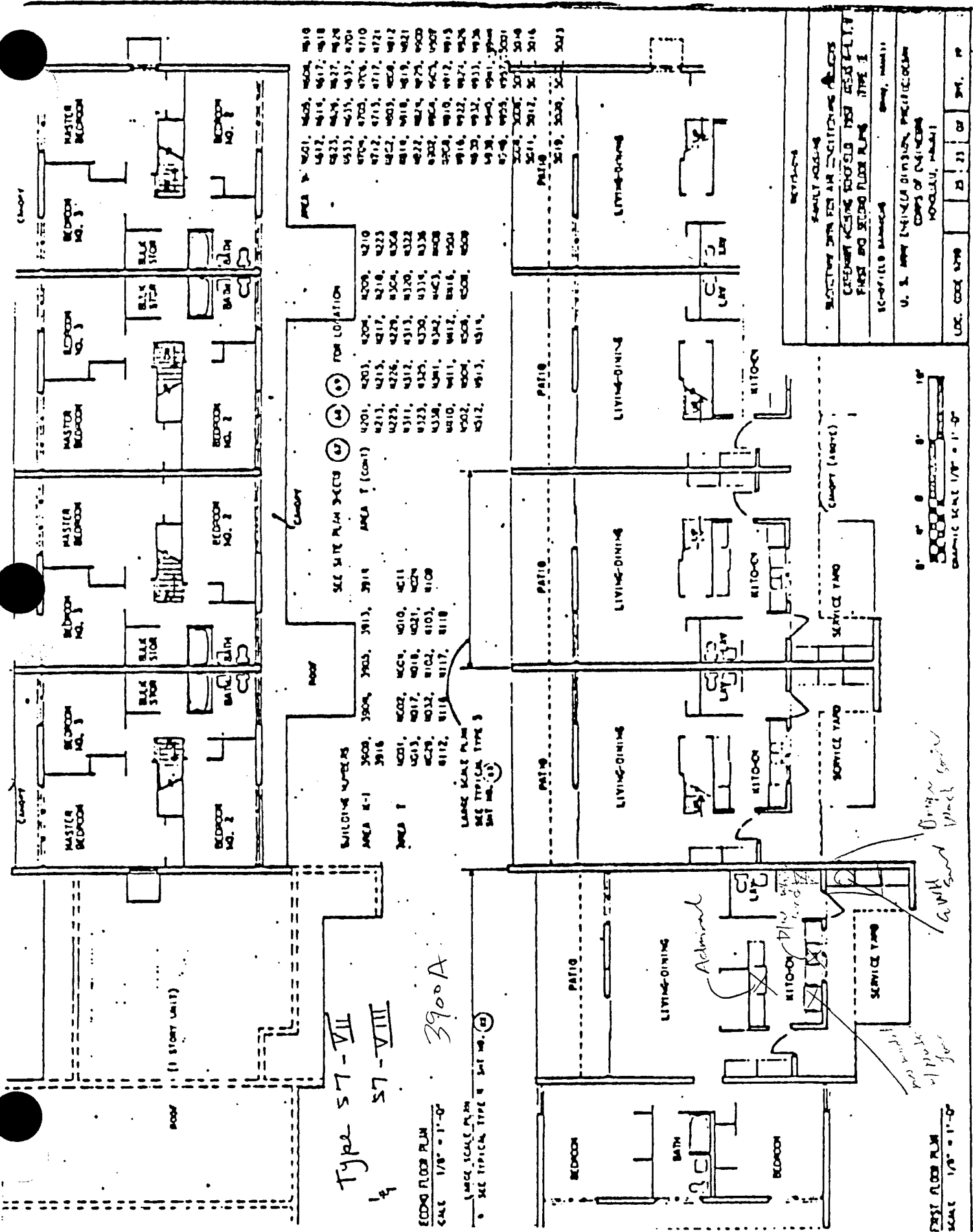
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit SK  | 21/105 | 112°F       |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |







Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3904  
Building Type: 57-VII  
Apartment: A  
No. Bedrooms: 2  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: from 3-4 pm  
No. of Occupants: 3  
Average No. of Showers/Day: 3  
Average No. of Laundry Loads/Week: 6  
Average No. of Times Dishwasher Used/Day: 1  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

same as 57-III

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

*Same as 57-TII*

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit Sk  | 22/105 | 118         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |







Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3913

Building Type: 57-VII

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as  
57-III

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

same as 57-II

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

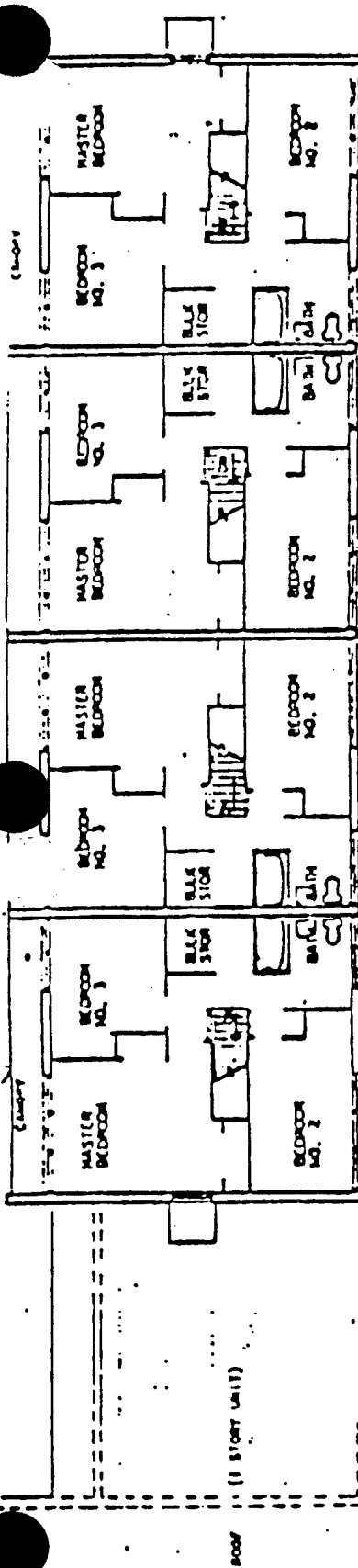
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow        | Water Temp. | Remarks |
|---------|-------------|-------------|---------|
| Shur    | 2 1/2 / 105 | 124         |         |
|         |             |             |         |
|         |             |             |         |
|         |             |             |         |
|         |             |             |         |
|         |             |             |         |
|         |             |             |         |
|         |             |             |         |
|         |             |             |         |



Type S7-VII

S7-VIII

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

LARGE SCALE PLAN  
SEE TYPICAL TYPE S UNIT NO. 10

3.913A

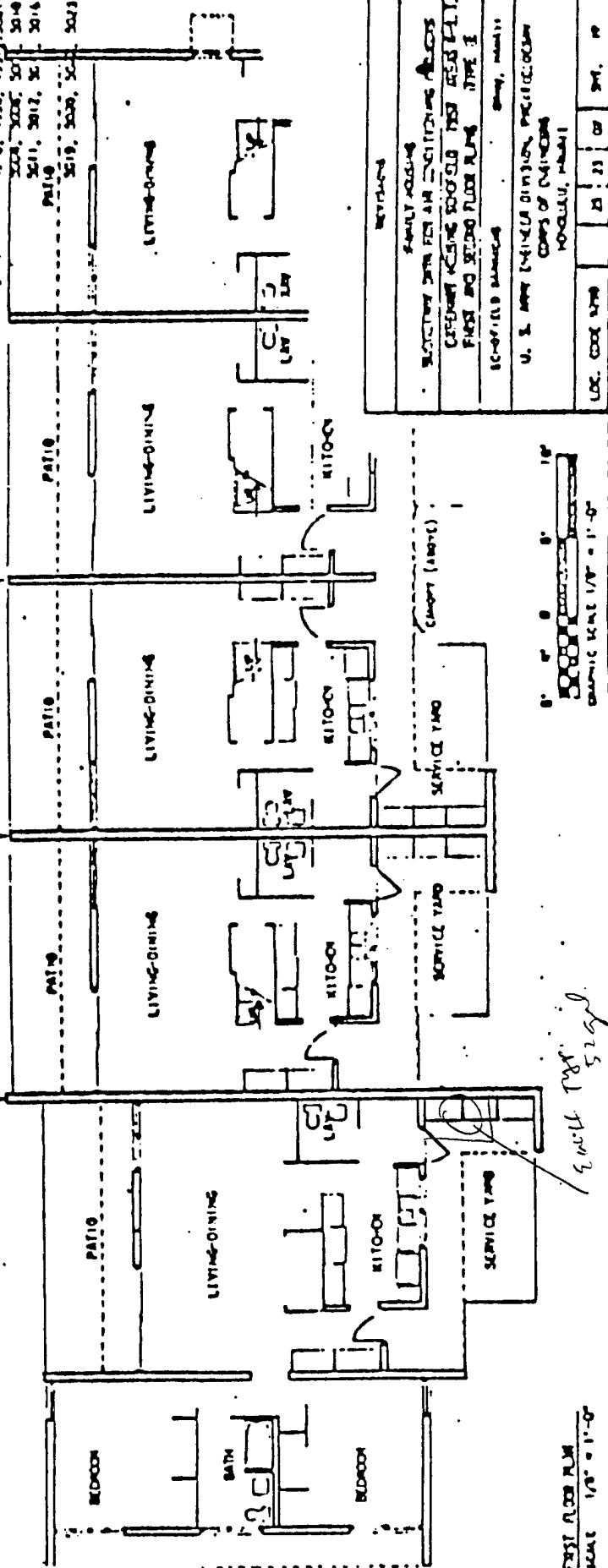
BUILDING NUMBERS  
AREA A-1 3908, 3909, 3910, 3911, 3912, 3913, 3914

AREA T  
3901, 3902, 3903, 3904, 3905, 3906, 3907, 3908, 3909, 3910, 3911, 3912, 3913, 3914, 3915, 3916, 3917, 3918, 3919, 3920, 3921, 3922, 3923, 3924, 3925, 3926, 3927, 3928, 3929, 3930, 3931, 3932, 3933, 3934, 3935, 3936, 3937, 3938, 3939, 3940, 3941, 3942, 3943, 3944, 3945, 3946, 3947, 3948, 3949, 3950, 3951, 3952, 3953, 3954, 3955, 3956, 3957, 3958, 3959, 3960, 3961, 3962, 3963, 3964, 3965, 3966, 3967, 3968, 3969, 3970, 3971, 3972, 3973, 3974, 3975, 3976, 3977, 3978, 3979, 3980, 3981, 3982, 3983, 3984, 3985, 3986, 3987, 3988, 3989, 3990, 3991, 3992, 3993, 3994, 3995, 3996, 3997, 3998, 3999, 4000

LARGE SCALE PLAN  
SEE TYPICAL TYPE S UNIT NO. 10

SEE SITE PLAN SHEET (A) FOR LOCATION

AREA T (CONT.)  
4201, 4202, 4203, 4204, 4205, 4206, 4207, 4208, 4209, 4210, 4211, 4212, 4213, 4214, 4215, 4216, 4217, 4218, 4219, 4220, 4221, 4222, 4223, 4224, 4225, 4226, 4227, 4228, 4229, 4230, 4231, 4232, 4233, 4234, 4235, 4236, 4237, 4238, 4239, 4240, 4241, 4242, 4243, 4244, 4245, 4246, 4247, 4248, 4249, 4250, 4251, 4252, 4253, 4254, 4255, 4256, 4257, 4258, 4259, 4260, 4261, 4262, 4263, 4264, 4265, 4266, 4267, 4268, 4269, 4270, 4271, 4272, 4273, 4274, 4275, 4276, 4277, 4278, 4279, 4280, 4281, 4282, 4283, 4284, 4285, 4286, 4287, 4288, 4289, 4290, 4291, 4292, 4293, 4294, 4295, 4296, 4297, 4298, 4299, 4300

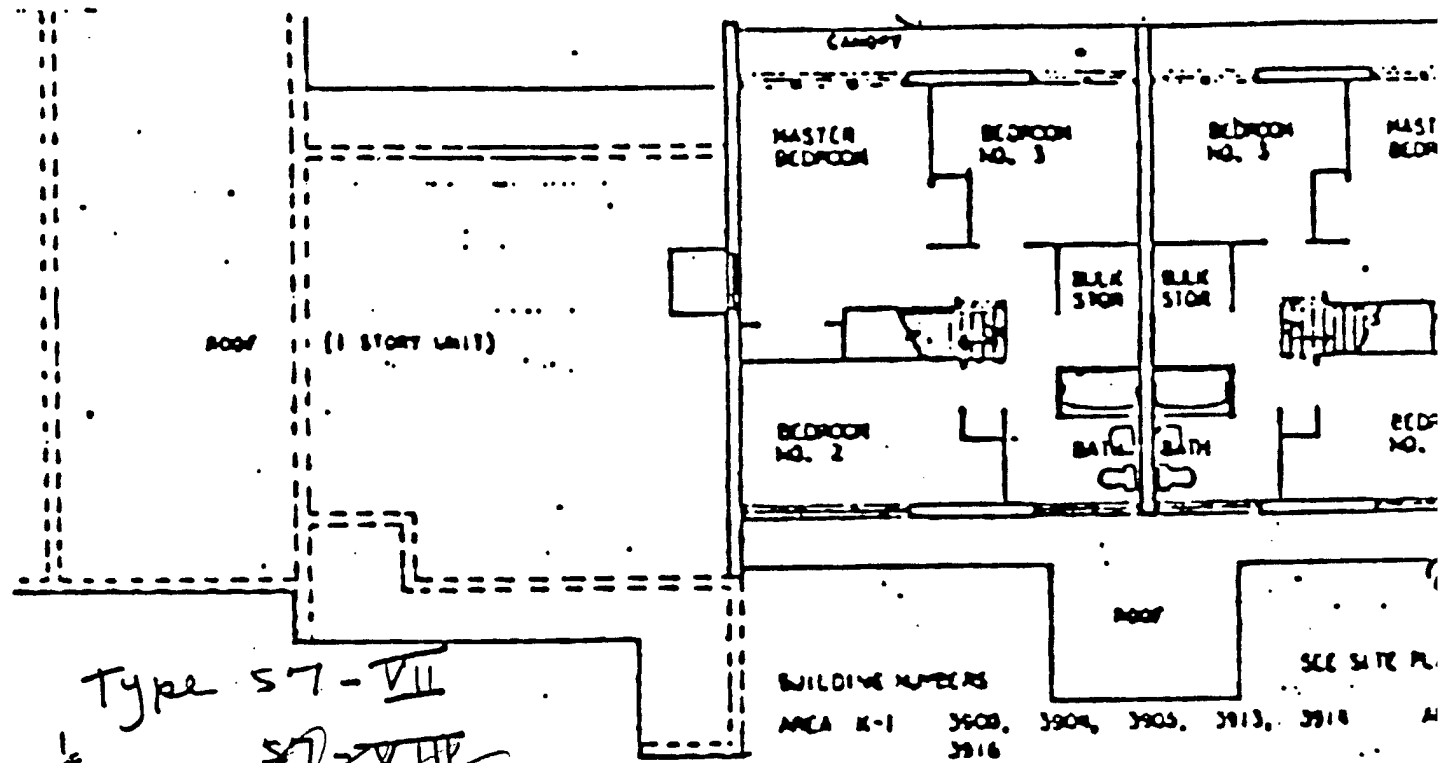


FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

6-11-74 T88 529d

MAY 1973

69



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3900A 3913A  
3904A 3914E  
3905E 3916A

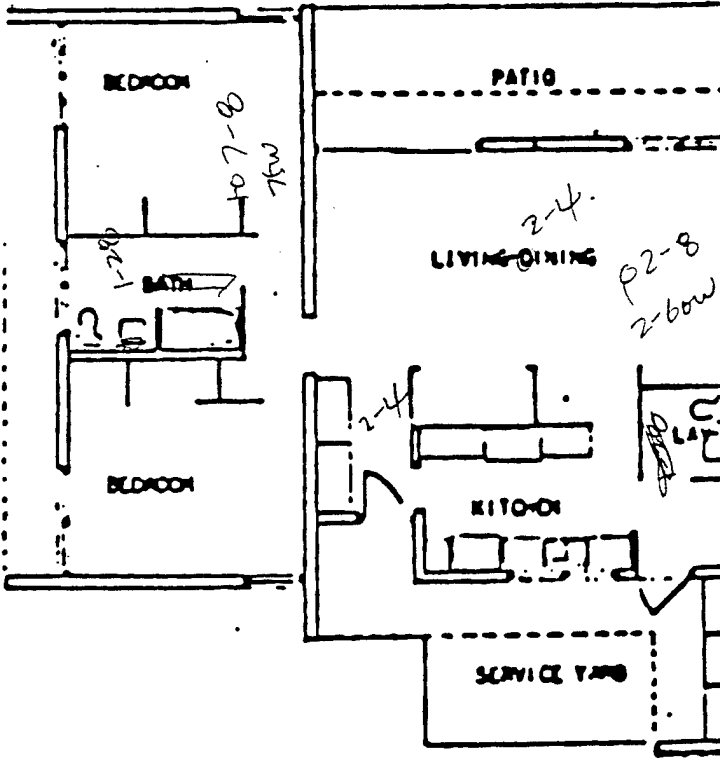
BUILDING NUMBERS

|          |                        |                        |                        |                        |                  |
|----------|------------------------|------------------------|------------------------|------------------------|------------------|
| AREA K-1 | 3900, 3916             | 3904, 3916             | 3905, 3916             | 3913, 3916             | 3918             |
| AREA T   | MC01, MC13, MC29, 8112 | MC02, MC17, MC32, 8116 | MC04, MC18, MC12, 8116 | MC10, MC21, 8103, 8118 | MC11, MC24, 8108 |

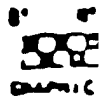
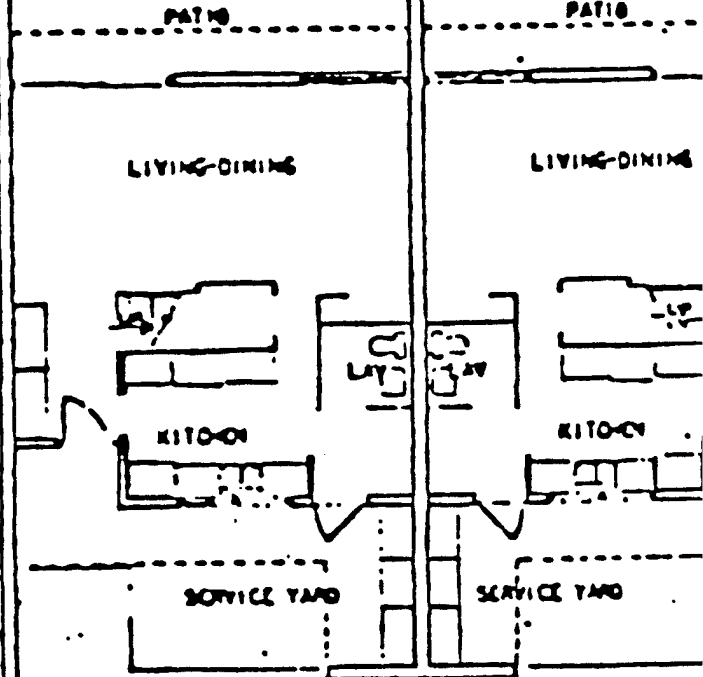
SEE SITE PL.

LARGE SCALE PLAN  
SEE TYPICAL TYPE 8 UNIT NO. 83

LARGE SCALE PLAN  
SEE TYPICAL TYPE 5 UNIT NO. 83



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3914

Building Type: 57 HI

Apartment: 2

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8 hrs.

No. of Occupants: 4

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area



Window Yes No  
Tinted /  
Reflective Coating /

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*Same as 57-III*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

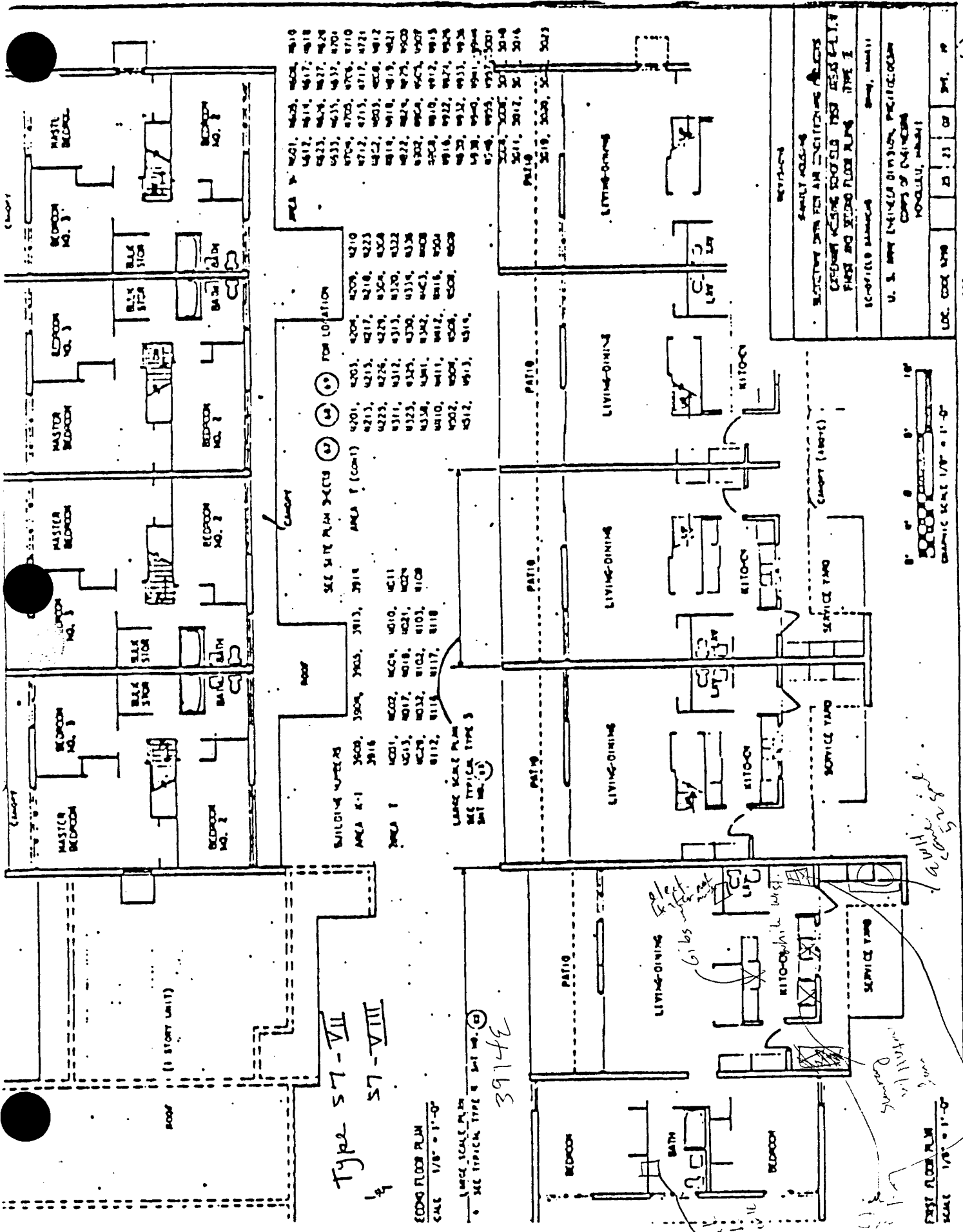
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit sk  | 22/105 | 118         |         |
| Shwr    | 42/105 | 110         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |



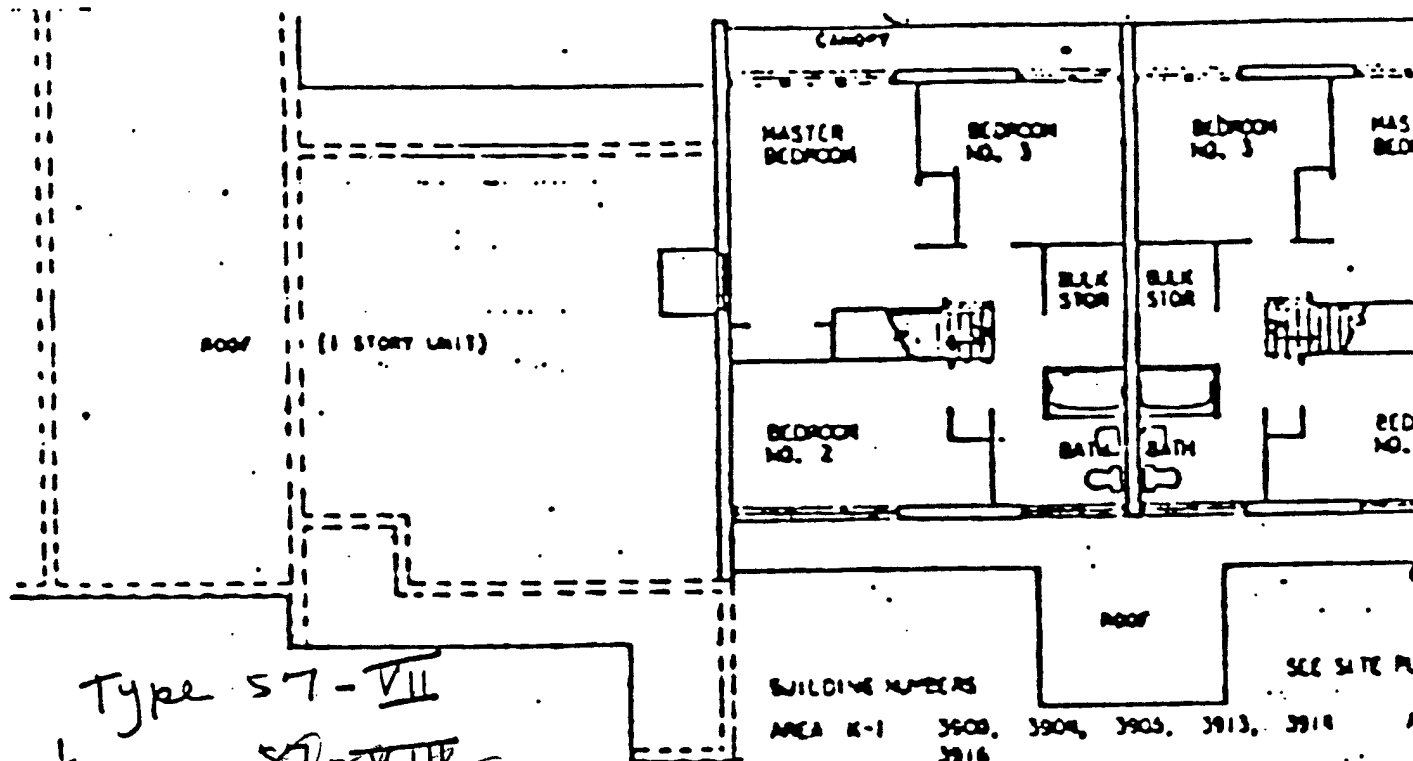
Type S7-VII  
S7-VIII

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3914E  
LARGE SCALE PLAN  
SEE TYPICAL TYPE S  
SEE TYPICAL TYPE S  
SEE TYPICAL TYPE S

|  |  |    |    |    |    |
|--|--|----|----|----|----|
| LOC. CODE 1248                                 | 25   | 23 | 07 | 34 | 19 |
| U. S. ARMY ENGINEERING DIVISION, PRECINCT 1000 | CONTRACT NO. 1000-1000-1000                  |    |    |    |    |
| 10-00-1000-1000-1000                           | 10-00-1000-1000-1000                         |    |    |    |    |
| OFFICE OF THE CHIEF OF ENGINEERS               | OFFICE OF THE CHIEF OF ENGINEERS             |    |    |    |    |
| ENGINEERING DATA FOR AIR CONDITIONING ALLOYS   | ENGINEERING DATA FOR AIR CONDITIONING ALLOYS |    |    |    |    |

GRAPHIC SCALE 1/8" = 1'-0"



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

LARGE SCALE PLAN  
SEE TYPICAL TYPE 4 SMT NO. 43

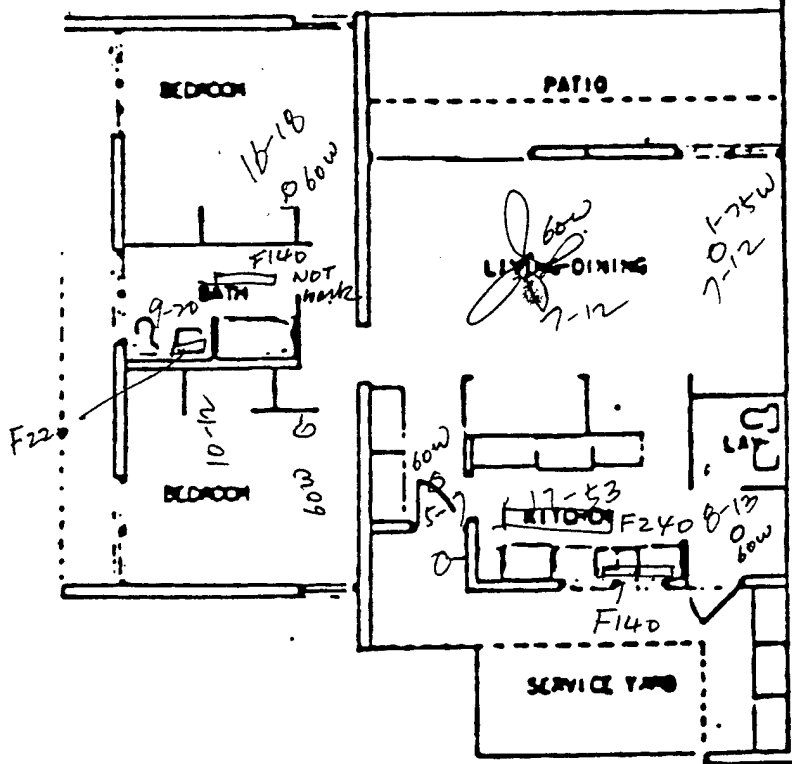
3900A 3913A  
3904A 3914E  
3905E 3916A

BUILDING NUMBERS

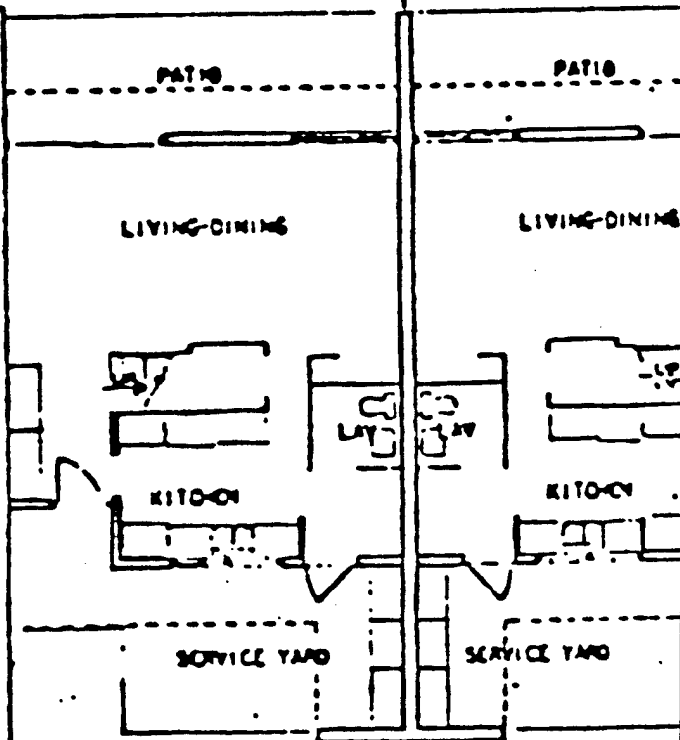
AREA K-1 3900, 3904, 3905, 3913, 3914  
3916

AREA T MC01, MC02, MC04, MC10, MC11  
MC13, MC17, MC18, MC21, MC24  
MC29, MC32, MC02, MC03, MC08  
MC12, MC16, MC17, MC18

LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SMT NO. 33



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"



UNIT TYPE 57-VIII

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3900

Building Type: 57-VIII

Apartment: C

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: from 2 p.m. on

No. of Occupants: 4

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: not used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

same as 57-111

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

### Reflective Coating

Same as 57-111

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
- 1) Storage \_\_\_\_\_
- 2) Instantaneous \_\_\_\_\_
- 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks       |
|---------|--------|-------------|---------------|
| Kit SK  | 12/105 | 109         | Doing Laundry |
|         |        |             |               |
|         |        |             |               |
|         |        |             |               |
|         |        |             |               |
|         |        |             |               |
|         |        |             |               |
|         |        |             |               |
|         |        |             |               |
|         |        |             |               |

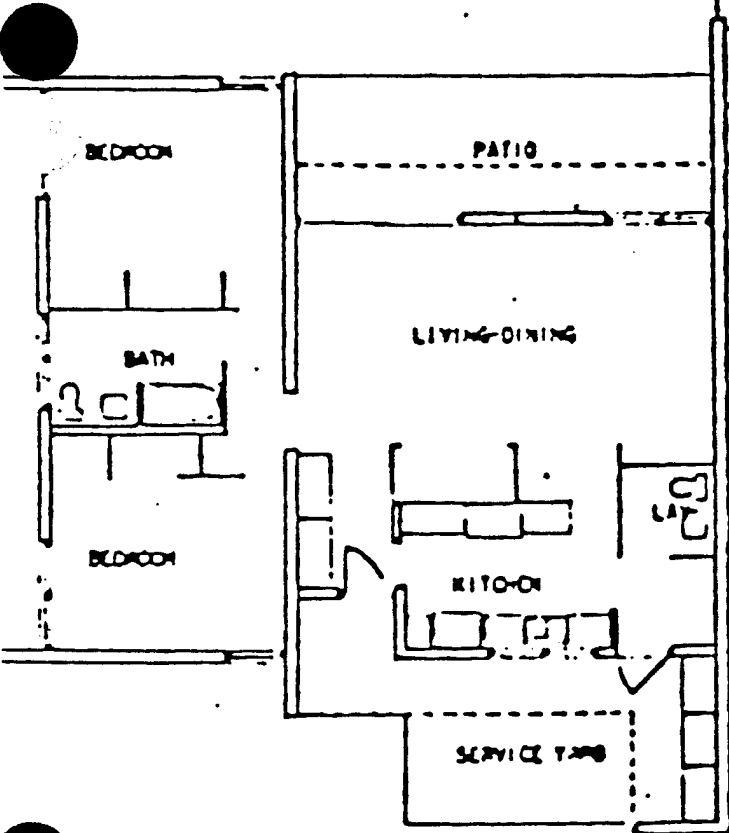


3900 A B C D E  
 3904 A B C D E  
 3905 A B C D E  
 3913 A B C D E  
 3914 E  
 3916 A

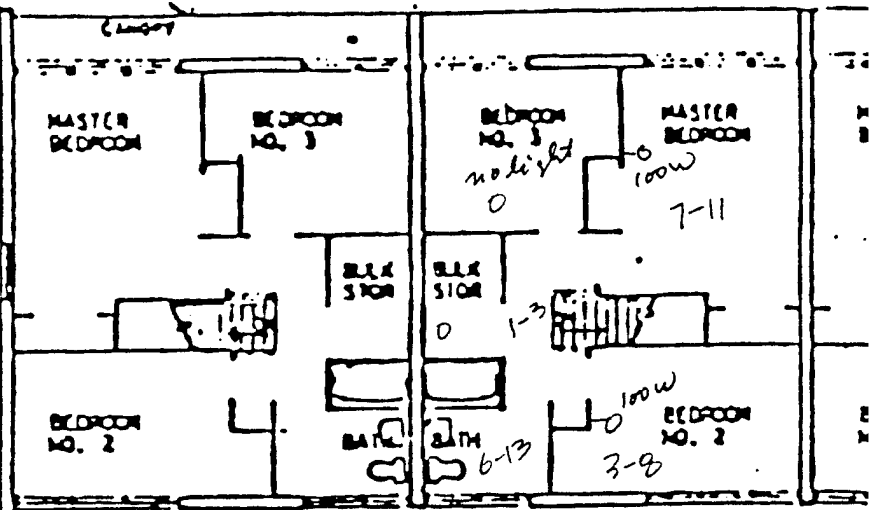
Type S7-VII  
 S7-VIII

COND FLOOR PLAN  
 1/8" = 1'-0"

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 8 SAT NO. 12



COND FLOOR PLAN  
 1/8" = 1'-0"



BUILDING NUMBERS

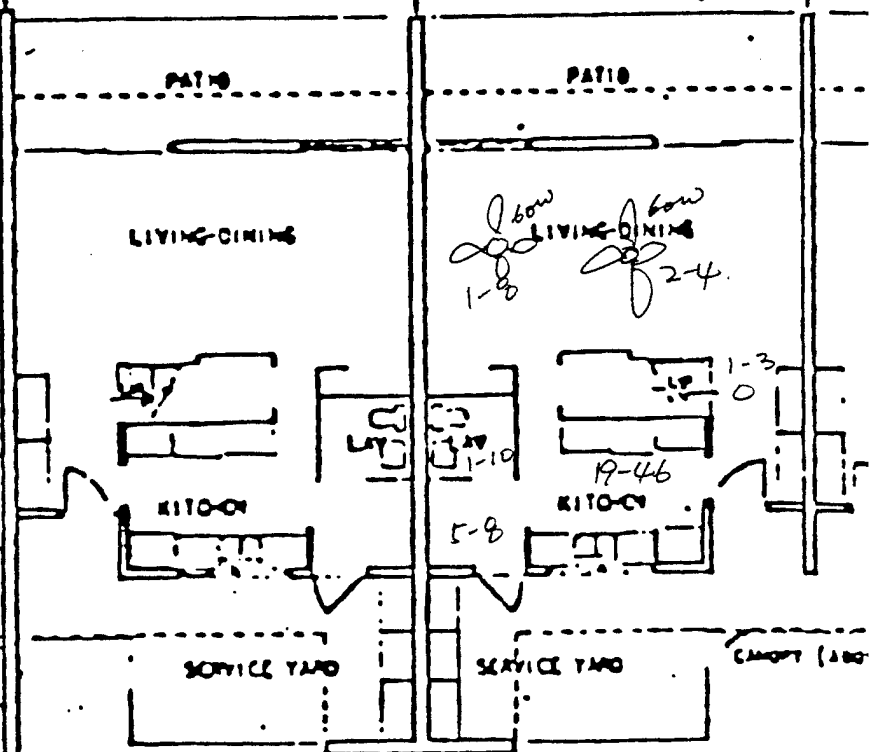
AREA K-1 3900, 3904, 3905, 3913, 3916  
 3916

AREA T  
 NO. 1, NO. 2, NO. 3, NO. 4, NO. 5  
 NO. 6, NO. 7, NO. 8, NO. 9, NO. 10  
 NO. 11, NO. 12, NO. 13, NO. 14, NO. 15

SEE SITE PLAN SHEET 67

AREA T (CONT)

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 3  
 SAT NO. 13



GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3900

Building Type: 57-VIII

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 5

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

*same as 57-III*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

1) Condition of circulator         
2) Circulator capacity         
3) Is aquastat provided?         
4) Aquastat temperature setting         
5) Mfg/Model         
6) Electrical Data       

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location         
b. Areas Served         
c. Manufacturer and Model         
d. Energy (Oil, Gas, Electric, Coal, Etc.)         
e. Type Heaters & Quantities:  
1) Storage         
2) Instantaneous         
3) Semi-Instantaneous         
f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

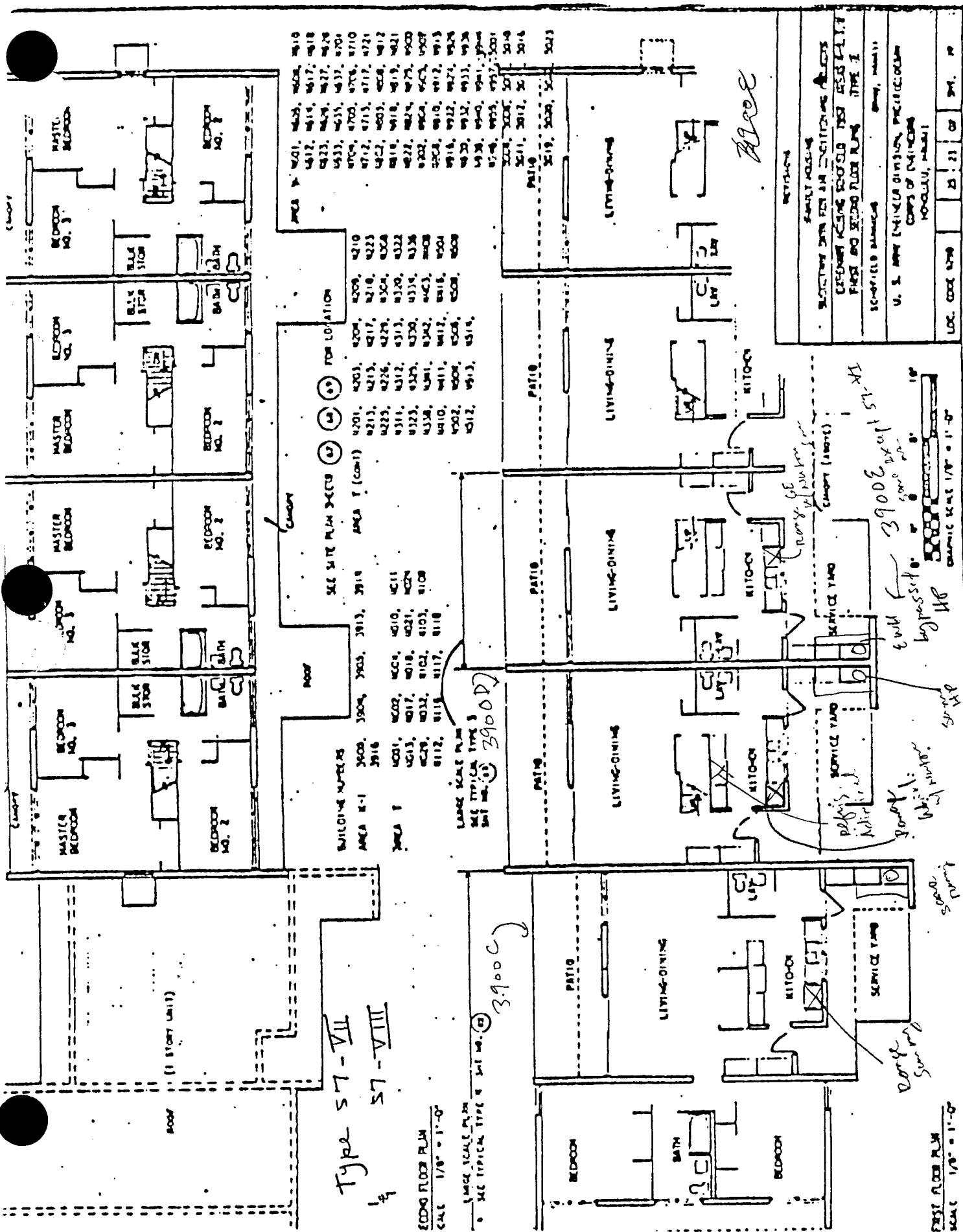
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

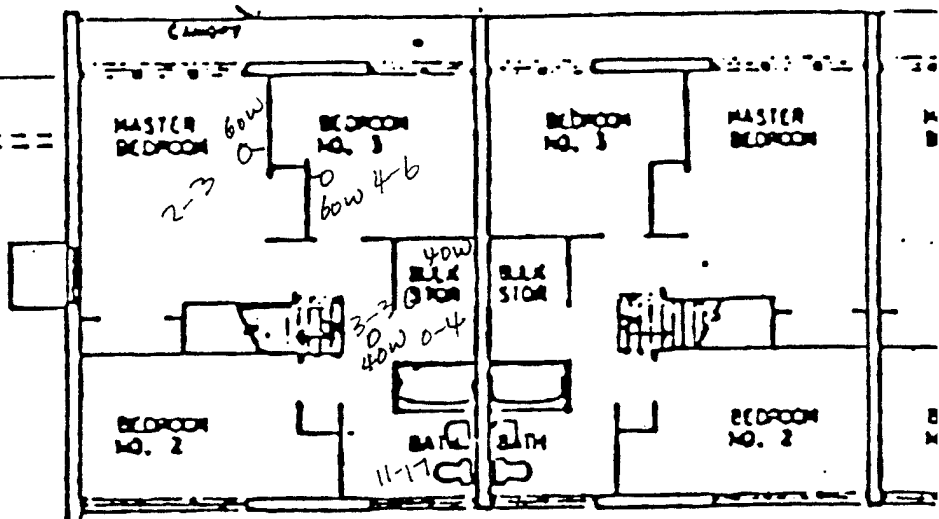
### 3.4 HOT WATER FIXTURES

| Fixture | Flow     | Water Temp. | Remarks |
|---------|----------|-------------|---------|
| Kit Sk  | 1.52/105 | 122         |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |





3900 A B C D E  
 3904 A B C D E  
 3905 A B C D E  
 3913 A B C D E  
 3914 E  
 3916 A



Type S7-VII  
 S7-VIII

BUILDING NUMBERS

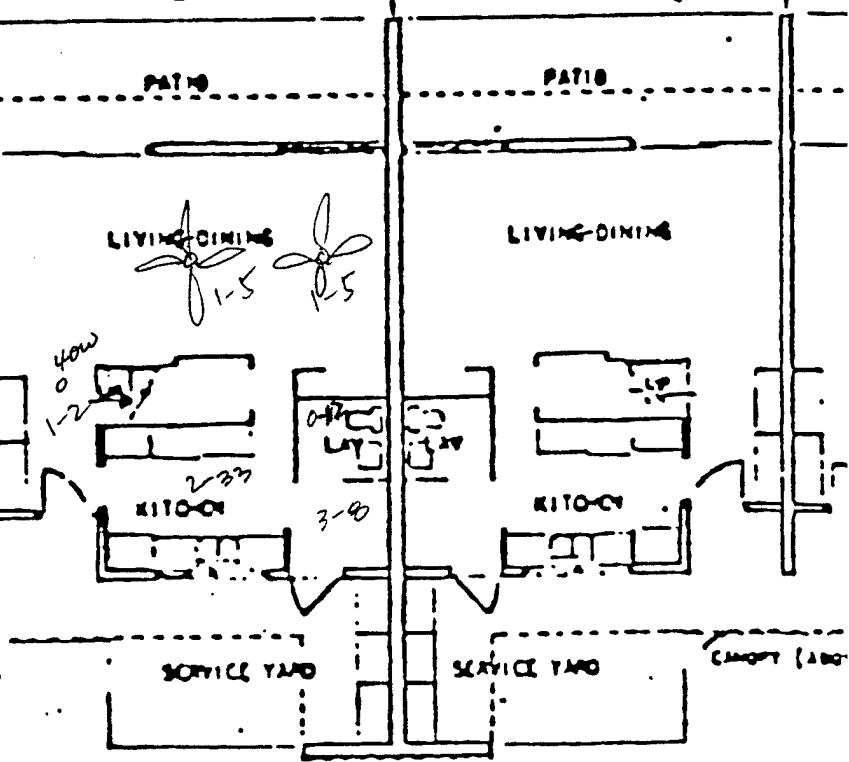
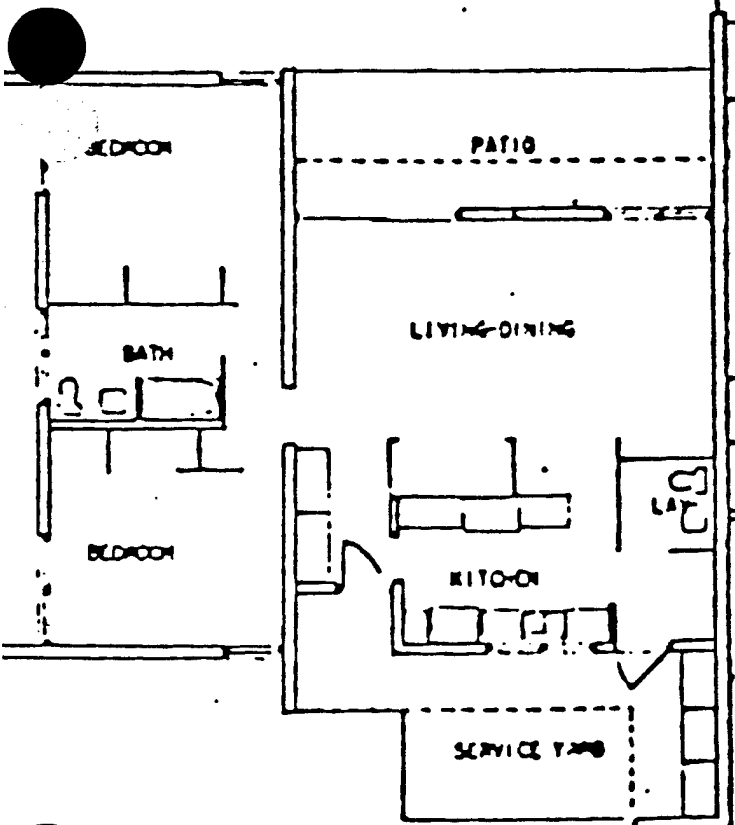
| AREA   | 3900   | 3904   | 3905   | 3913   | 3914   | 3916   |
|--------|--------|--------|--------|--------|--------|--------|
| AREA T | NO. 1  | NO. 2  | NO. 4  | NO. 10 | NO. 11 | NO. 13 |
|        | NO. 15 | NO. 17 | NO. 18 | NO. 21 | NO. 24 | NO. 28 |
|        | NO. 32 | NO. 35 | NO. 42 | NO. 43 | NO. 48 | NO. 52 |
|        | NO. 55 | NO. 58 | NO. 62 | NO. 65 | NO. 68 | NO. 72 |

SEE SITE PLAN SHEET (C)

COND FLOOR PLAN  
SCALE 1/8" = 1'-0"

LARGE SCALE PLAN  
SEE TYPICAL TYPE R SH. NO. (C)

LARGE SCALE PLAN  
SEE TYPICAL TYPE S  
SH. NO. (C)



COND FLOOR PLAN  
SCALE 1/8" = 1'-0"

GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3900  
Building Type: 57-VIII  
Apartment: E  
No. Bedrooms: 3  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: \_\_\_\_\_  
No. of Occupants: 4  
Average No. of Showers/Day: 3  
Average No. of Laundry Loads/Week: 10  
Average No. of Times Dishwasher Used/Day: 1  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as 57-III

Window Yes No  
Tinted ✓  
Reflective Coating ✓

3.0 HOT WATER SYSTEM

same as 57-11

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

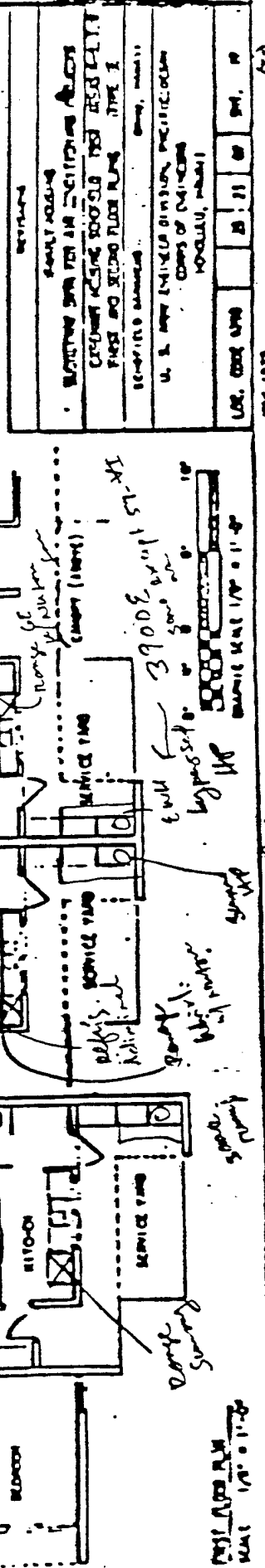
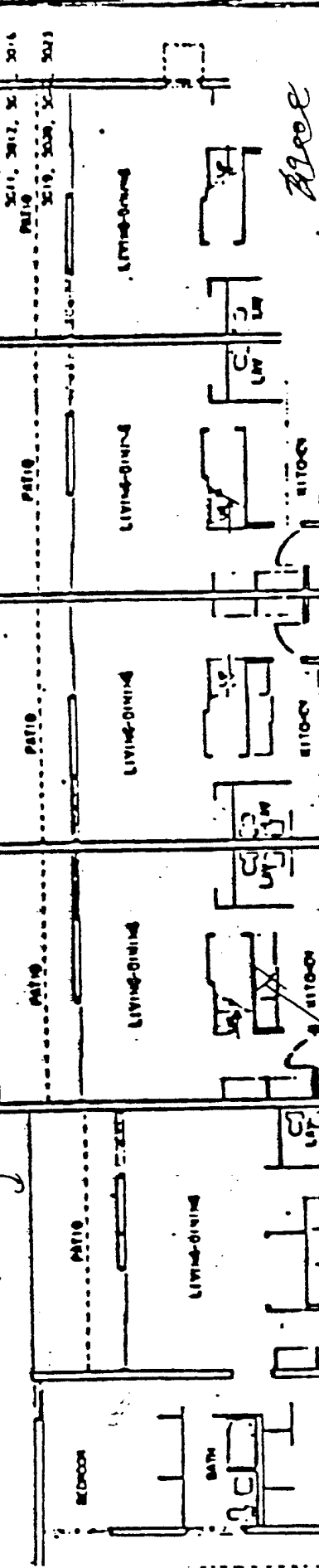
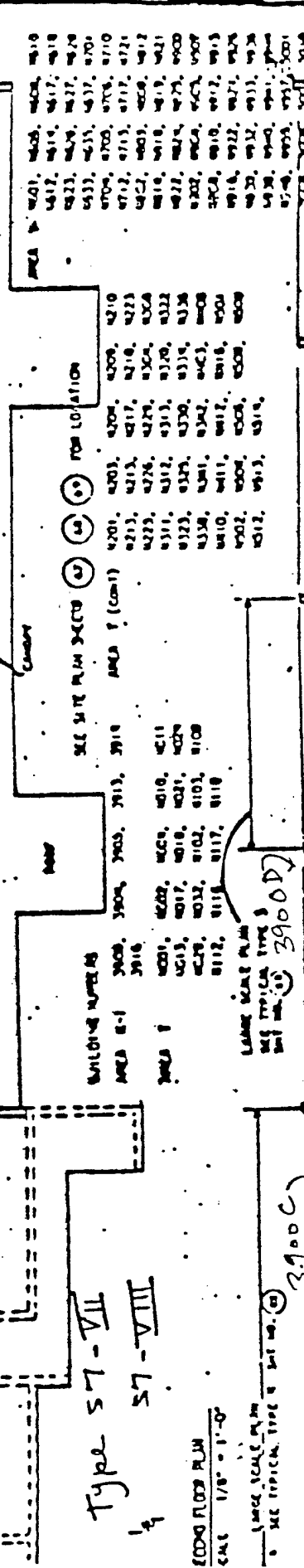
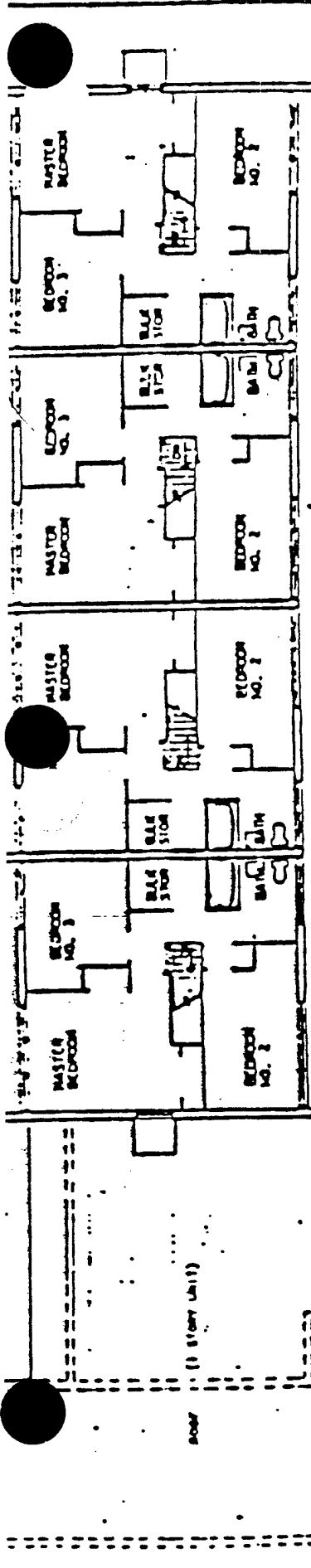
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow     | Water Temp. | Remarks |
|---------|----------|-------------|---------|
| KIT SK  | 1.52/105 | 120         |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |



Type S7-VII  
S7-VIII

ENDS FLOOR PLAN  
SCALE 1/8" = 1'-0"

LARGE SCALE PLAN  
SEE TYPICAL TYPE 3  
SEE TYPICAL TYPE 4

3900C

3900D

3900E

3900F

3900G

3900H

3900I

3900J

3900K

3900L

3900M

3900N

3900O

3900P

3900Q

3900R

3900S

3900T

3900U

3900V

3900W

3900X

3900Y

3900Z

3900AA

3900AB

3900AC

3900AD

3900AE

3900AF

3900AG

3900AH

3900AI

3900AJ

3900AK

3900AL

3900AM

3900AN

3900AO

3900AP

3900AQ

3900AR

3900AS

3900AT

3900AU

3900AV

3900AW

3900AX

3900AY

3900AZ

3900BA

3900BB

3900BC

3900BD

3900BE

3900BF

3900BG

3900BH

3900BI

3900BJ

3900BK

3900BL

3900BM

3900BN

3900BO

3900BP

3900BQ

3900BR

3900BS

3900BT

3900BU

3900BV

3900BW

3900BX

3900BY

3900BZ

3900CA

3900CB

3900CC

3900CD

3900CE

3900CF

3900CG

3900CH

3900CI

3900CJ

3900CK

3900CL

3900CM

3900CN

3900CO

3900CP

3900CQ

3900CR

3900CS

3900CT

3900CU

3900CV

3900CW

3900CX

3900CY

3900CZ

3900DA

3900DB

3900DC

3900DD

3900DE

3900DF

3900DG

3900DH

3900DI

3900DJ

3900DK

3900DL

3900DM

3900DN

3900DO

3900DP

3900DQ

3900DR

3900DS

3900DT

3900DU

3900DV

3900DW

3900DX

3900DY

3900DZ

3900EA

3900EB

3900EC

3900ED

3900EE

3900EF

3900EG

3900EH

3900EI

3900EJ

3900EK

3900EL

3900EM

3900EN

3900EO

3900EP

3900EQ

3900ER

3900ES

3900ET

3900EU

3900EV

3900EW

3900EX

3900EY

3900EZ

3900FA

3900FB

3900FC

3900FD

3900FE

3900FF

3900FG

3900FH

3900FI

3900FJ

3900FK

3900FL

3900FM

3900FN

3900FO

3900FP

3900FQ

3900FR

3900FS

3900FT

3900FU

3900FV

3900FW

3900FX

3900FY

3900FZ

3900GA

3900GB

3900GC

3900GD

3900GE

3900GF

3900GG

3900GH

3900GI

3900GJ

3900GK

3900GL

3900GM

3900GN

3900GO

3900GP

3900GQ

3900GR

3900GS

3900GT

3900GU

3900GV

3900GW

3900GX

3900GY

3900GZ

3900HA

3900HB

3900HC

3900HD

3900HE

3900HF

3900HG

3900HH

3900HI

3900HJ

3900HK

3900HL

3900HM

3900HN

3900HO

3900HP

3900HQ

3900HR

3900HS

3900HT

3900HU

3900HV

3900HW

3900HX

3900HY

3900HZ

3900IA

3900IB

3900IC

3900ID

3900IE

3900IF

3900IG

3900IH

3900II

3900IJ

3900IK

3900IL

3900IM

3900IN

3900IO

3900IP

3900IQ

3900IR

3900IS

3900IT

3900IU

3900IV

3900IW

3900IX

3900IY

3900IZ

3900JA

3900JB

3900JC

3900JD

3900JE

3900JF

3900JG

3900JH

3900JI

3900JJ

3900JK

3900JL

3900JM

3900JN

3900JO

3900JP

3900JQ

3900JR

3900JS

3900JT

3900JU

3900JV

3900JW

3900JX

3900JY

3900JZ

3900KA

3900KB

3900KC

3900KD

3900KE

3900KF

3900KG

3900KH

3900KI

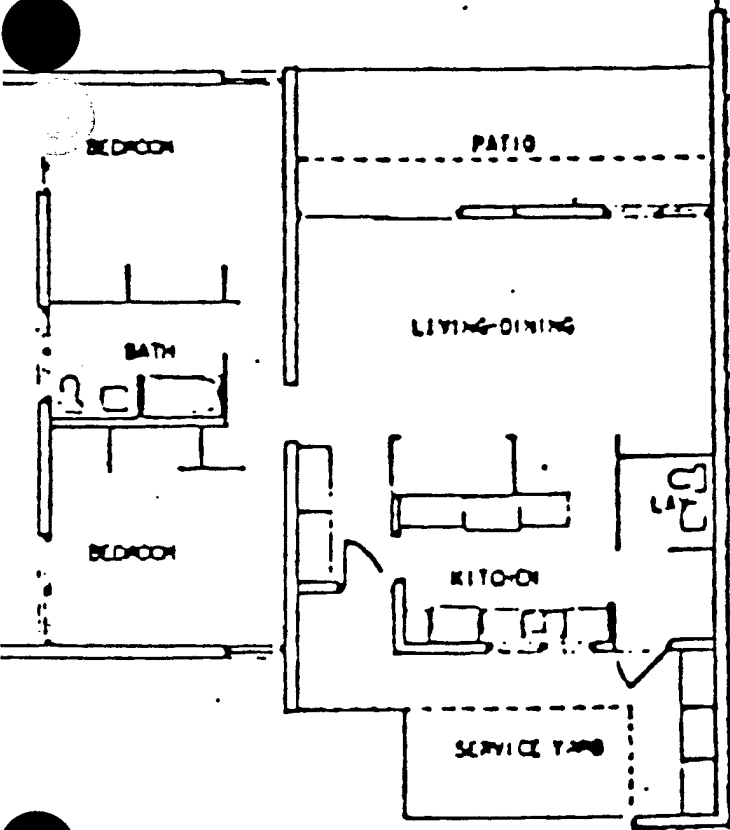
3900KJ

3900 A B C D E  
 3904 A B C D E  
 3905 A B C D E  
 3913 A B C D E  
 3914 E  
 3916 A

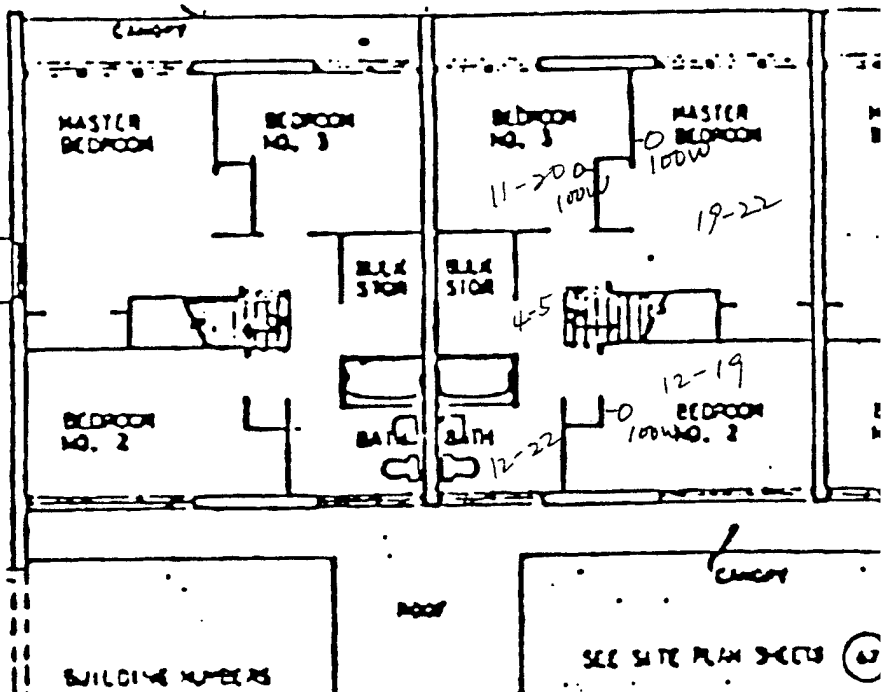
Type S7-VII  
 S7-VIII

COND FLOOR PLAN  
 SCALE 1/8" = 1'-0"

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 4 SHT NO. 12



COND FLOOR PLAN  
 SCALE 1/8" = 1'-0"

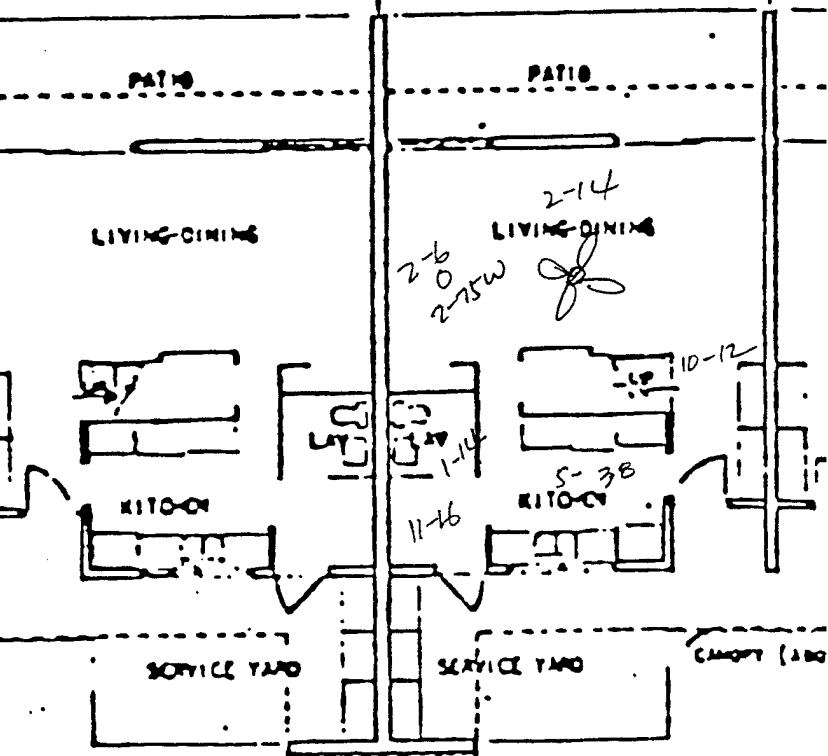


BUILDING NUMBERS

| AREA K-1 | 3900                   | 3904                   | 3905                   | 3913                   | 3914             | 3916 |
|----------|------------------------|------------------------|------------------------|------------------------|------------------|------|
| AREA T   | MC01, MC13, MC29, B112 | MC02, MC17, MC32, B116 | MC04, MC18, MC12, B117 | MC10, MC21, B103, B118 | MC11, MC24, B108 |      |

SEE SITE PLAN SHEET 62  
 AREA T (CONT)

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 5  
 SHT NO. 13



GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3904

Building Type: 57-VIII

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 5

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 2X weeks

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

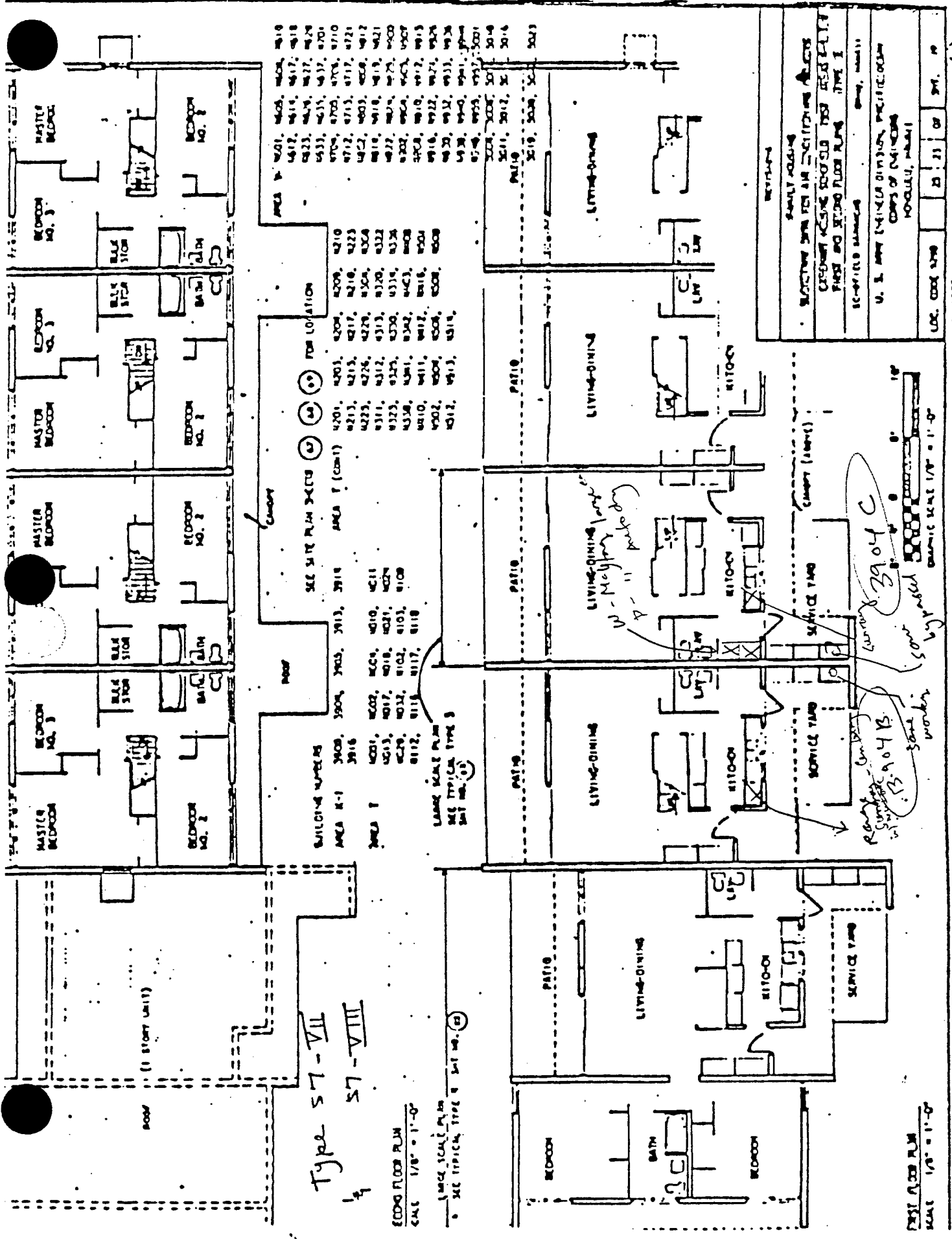
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit. SK | 22/10s | 124         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |



Type S7-VII  
S7-VIII

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

LARGE SCALE PLAN  
SEE TYPICAL TYPE S7-VI NO. (2)

FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

SEE SITE PLAN SHEETS (2) (3) (4) (5) FOR LOCATION

BUILDING NUMBER  
AREA 1-1 3908, 3909, 3910, 3911, 3912, 3913, 3914, 3915, 3916

AREA 2  
3901, 3902, 3903, 3904, 3905, 3906, 3907, 3908, 3909, 3910, 3911, 3912, 3913, 3914, 3915, 3916

LARGE SCALE PLAN  
SEE TYPICAL TYPE S7-VI NO. (2)

LIVING-DINING  
11' - 0" x 11' - 0" (approx.)

Range Hood  
13' x 9' x 4' 1/2"  
3' x 9' x 4' 1/2"  
3' x 9' x 4' 1/2"

Range Hood  
13' x 9' x 4' 1/2"  
3' x 9' x 4' 1/2"  
3' x 9' x 4' 1/2"

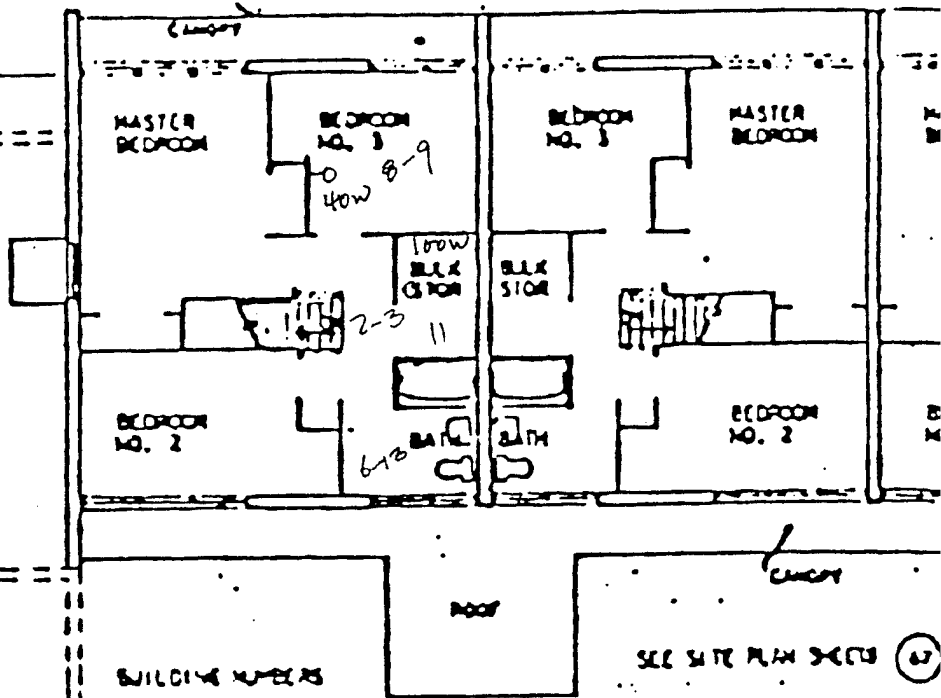
REVISIONS

|                                      |         |              |              |
|--------------------------------------|---------|--------------|--------------|
| REVISIONS                            | DATE    | BY           | APP'D        |
| 1. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 2. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 3. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 4. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 5. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 6. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 7. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 8. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 9. REVISIONS TO THE ORIGINAL DESIGN  | 10/1/68 | J. L. HARRIS | J. L. HARRIS |
| 10. REVISIONS TO THE ORIGINAL DESIGN | 10/1/68 | J. L. HARRIS | J. L. HARRIS |

U. S. ARMY ENGINEERING DIVISION  
FORT MONMOUTH, NEW JERSEY

DATE: 10/1/68

3900 A BCDE  
 3904 A BCDE  
 3905 A BCDE  
 3913 A BCDE  
 3914 E  
 3916 A



Type S7-VII  
 S7-VIII

BUILDING NUMBERS

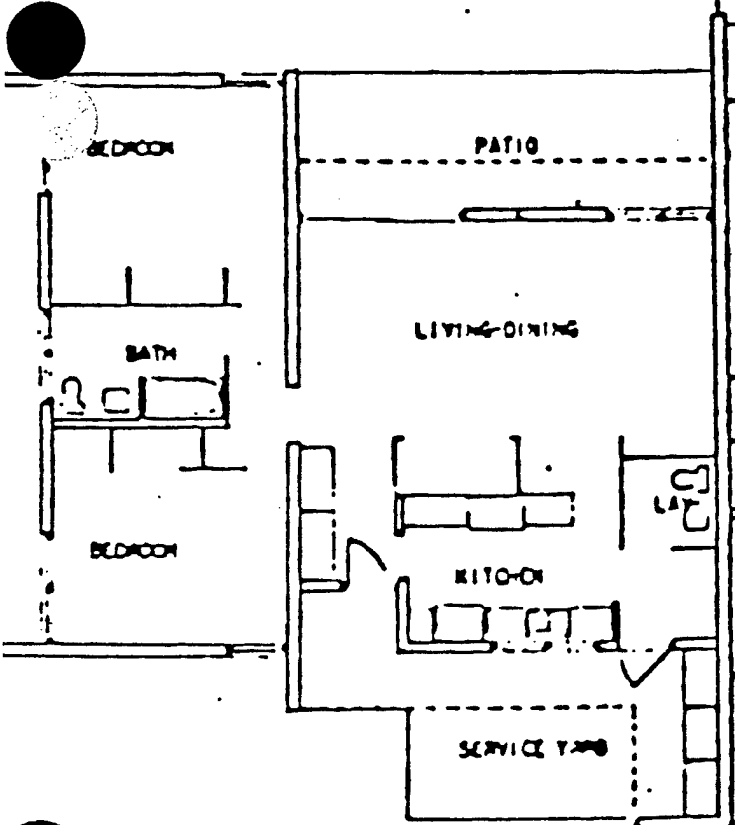
| AREA K-1 | 3900                   | 3904                   | 3905                   | 3913                   | 3914                   | 3916 |
|----------|------------------------|------------------------|------------------------|------------------------|------------------------|------|
| AREA T   | MC01, MC13, MC28, M112 | MC02, MC17, MC32, M113 | MC04, MC18, M102, M114 | MC10, MC21, M103, M117 | MC11, MC24, M108, M118 |      |

SEE SITE PLAN SHEETS (67)

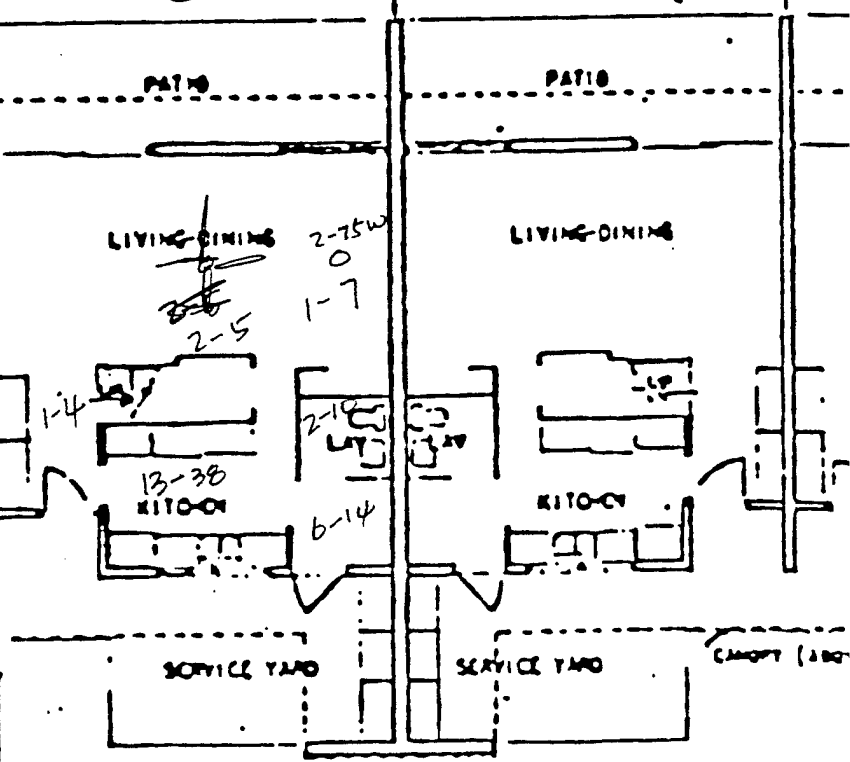
AREA T (CONT)

COND FLOOR PLAN  
 1/8" = 1'-0"

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 4 SAT NO. (62)



LARGE SCALE PLAN  
 SEE TYPICAL TYPE 5 SAT NO. (63)



COND FLOOR PLAN  
 1/8" = 1'-0"

GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3904

Building Type: 57-VIII

Apartment: C

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all Day

No. of Occupants: 5

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 6

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as

57 III

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

same as 57-111

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

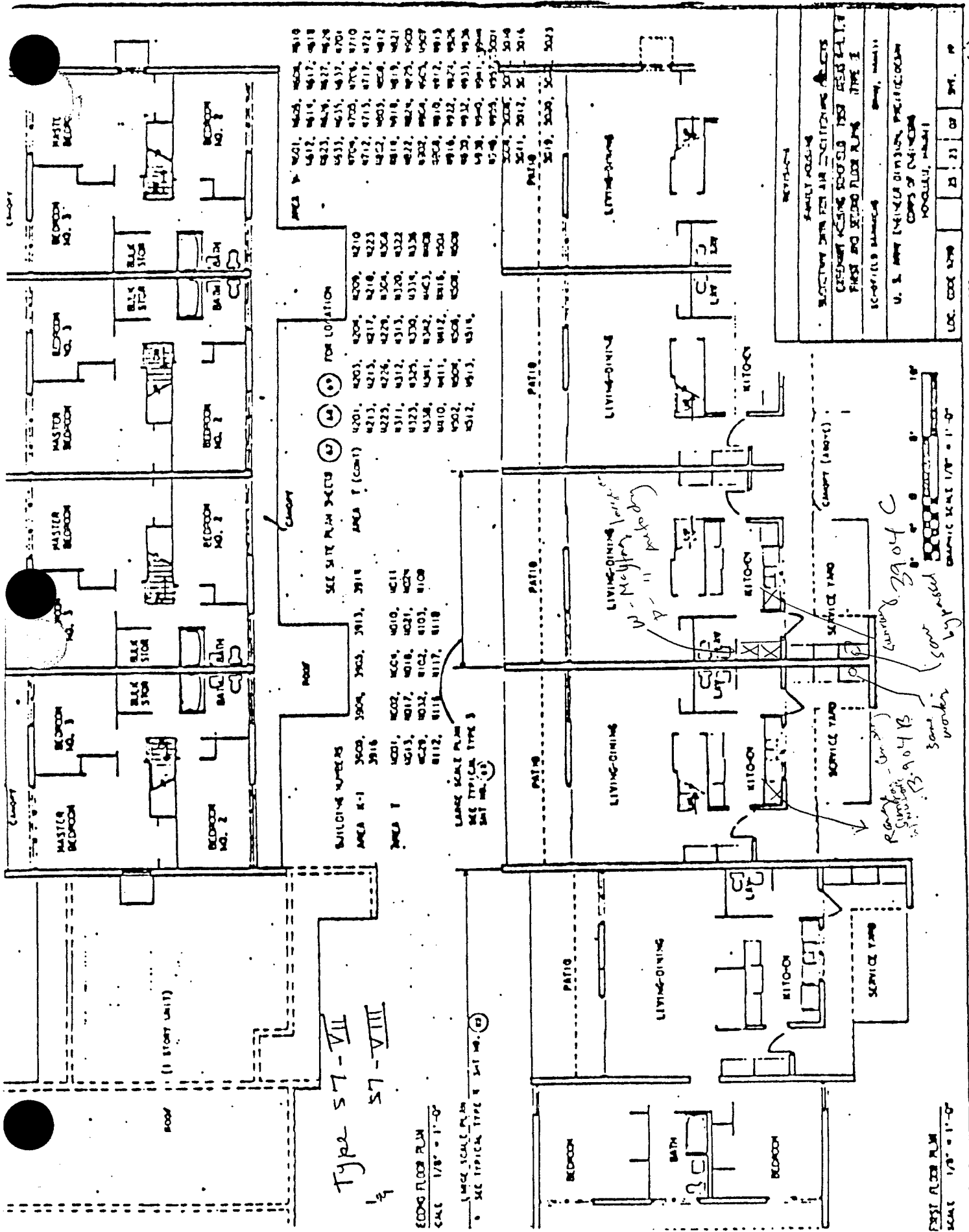
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks      |
|---------|--------|-------------|--------------|
| Kit Sk  | 30/105 | 110         | No restrictn |
|         |        |             |              |
|         |        |             |              |
|         |        |             |              |
|         |        |             |              |
|         |        |             |              |
|         |        |             |              |
|         |        |             |              |
|         |        |             |              |
|         |        |             |              |

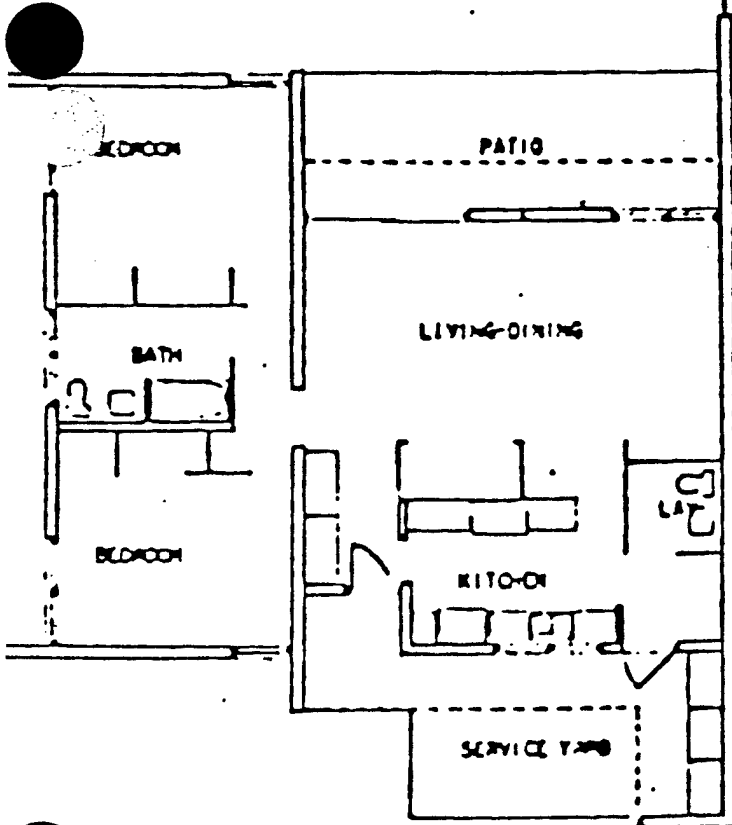


3900 ABCDE  
 3904 ABCDE  
 3905 ABCDE  
 3913 ABCDE  
 3914 E  
 3916 A

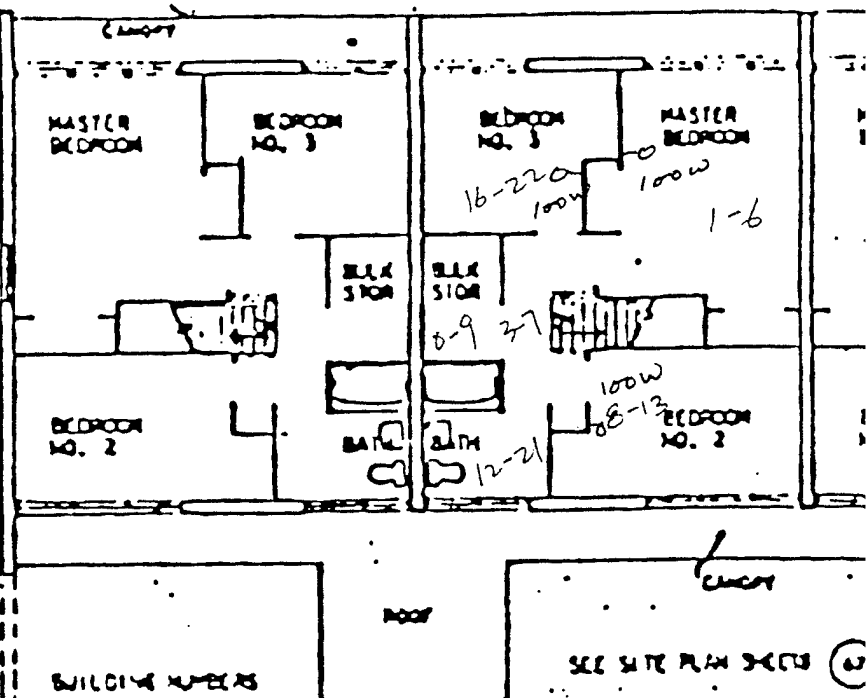
Type S7-VII  
 S7-VIII

COND FLOOR PLAN  
 SCALE 1/8" = 1'-0"

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 4 SHT NO. 63

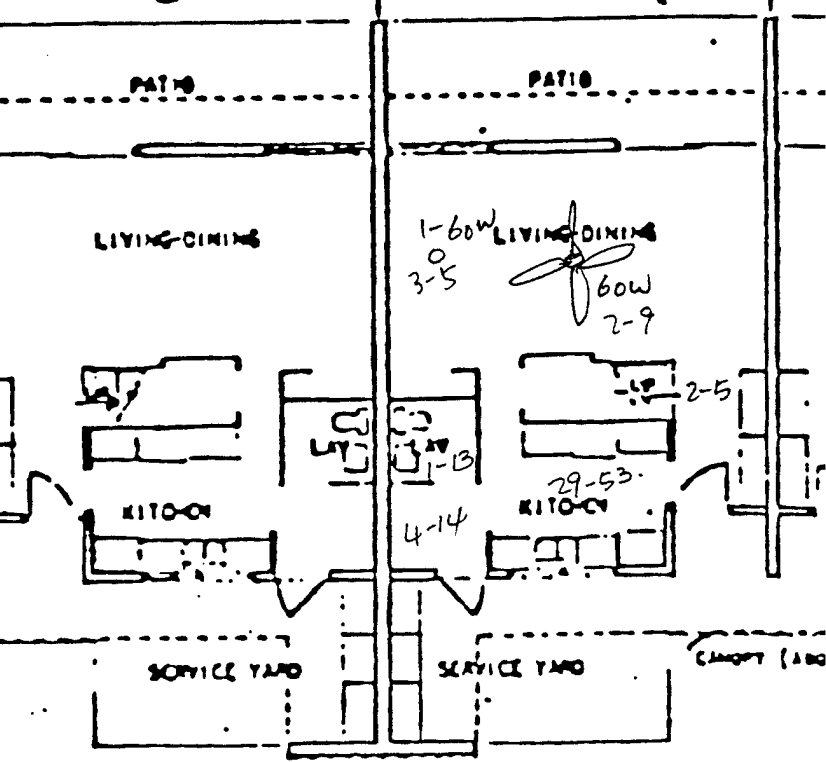


COND FLOOR PLAN  
 SCALE 1/8" = 1'-0"



BUILDING NUMBERS  
 AREA K-1 3900, 3904, 3905, 3913, 3914, 3916  
 AREA T MC01, MC02, MC04, MC10, MC11, MC13, MC17, MC18, MC21, MC24, MC28, MC32, MC02, MC03, MC08, MC12, MC16, MC17, MC18

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 5 SHT NO. 63



GRAPHIC SCALE 1/8" = 1'-0"

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3904

Building Type: 57-VIII

Apartment: 2

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8

No. of Occupants: 4

Average No. of Showers/Day: 8

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted /  
Reflective Coating /

*Same as 57-III*

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

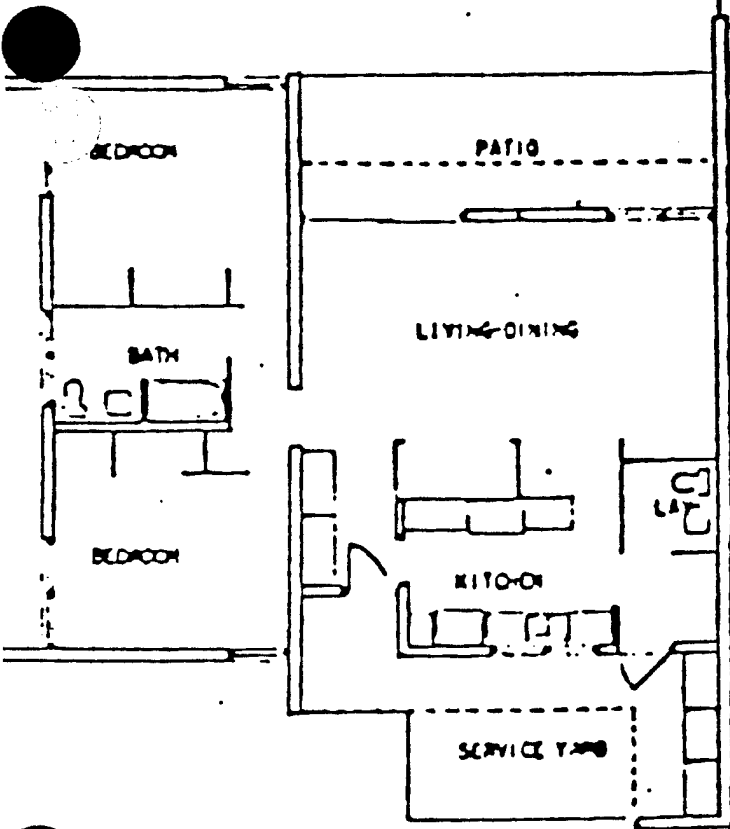
| Fixture  | Flow      | Water Temp. | Remarks |
|----------|-----------|-------------|---------|
| Kit. S/H | 2.5 l/10s | 124         |         |
| Shower   | 2.4 l/10s | 122         |         |
|          |           |             |         |
|          |           |             |         |
|          |           |             |         |
|          |           |             |         |
|          |           |             |         |
|          |           |             |         |

3900 A B C D E  
 3904 A B C D E  
 3905 A B C D E  
 3913 A B C D E  
 3914 E  
 3916 A

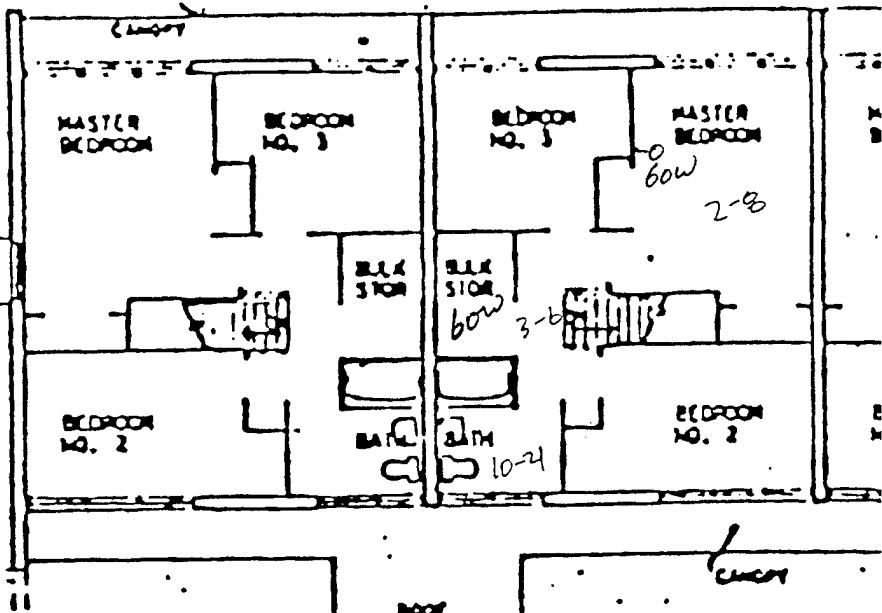
Type S7-VII  
 S7-VIII

COND FLOOR PLAN  
 1/8" = 1'-0"

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 4 SH. NO. 22



COND FLOOR PLAN  
 1/8" = 1'-0"

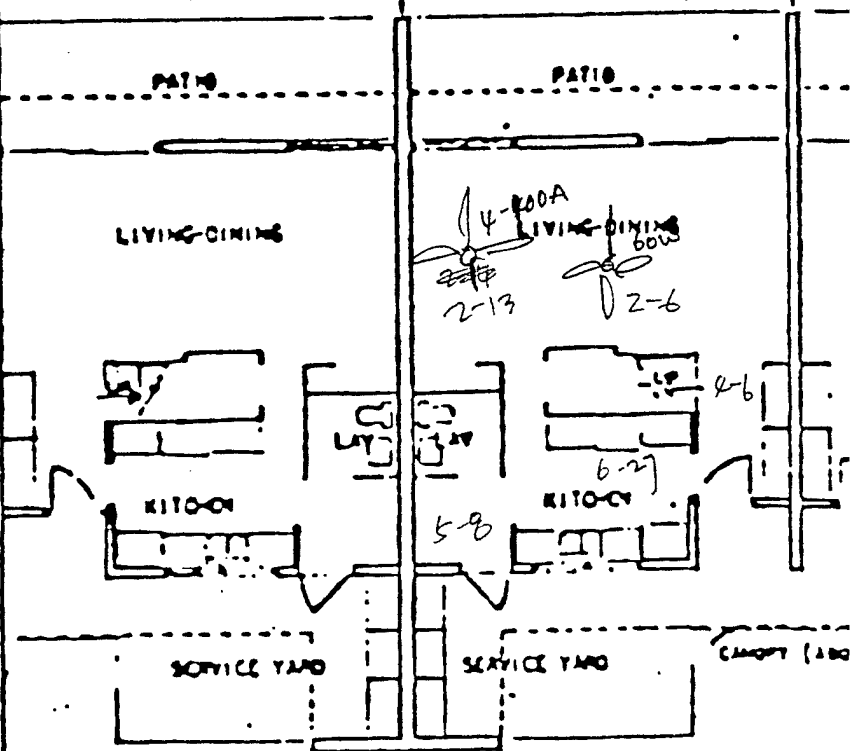


BUILDING NUMBERS

| AREA     | NO.    | NO.    | NO.    | NO.    | NO.    |
|----------|--------|--------|--------|--------|--------|
| AREA K-1 | 3900   | 3904   | 3905   | 3913   | 3914   |
|          | 3916   |        |        |        |        |
| AREA T   | NO. 1  | NO. 2  | NO. 4  | NO. 10 | NO. 11 |
|          | NO. 13 | NO. 17 | NO. 18 | NO. 21 | NO. 24 |
|          | NO. 29 | NO. 32 | NO. 33 | NO. 35 | NO. 38 |
|          | NO. 42 | NO. 45 | NO. 47 | NO. 49 | NO. 51 |
|          | NO. 54 | NO. 57 | NO. 59 | NO. 61 | NO. 63 |

SEE SITE PLAN SHEET 22

LARGE SCALE PLAN  
 SEE TYPICAL TYPE 5  
 SH. NO. 23



GRAPHIC SCALE 1/8" = 1'-0"



UNIT TYPE 57-IX

Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3908

Building Type: 57-1x

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all day

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Yes \_\_\_\_\_ No \_\_\_\_\_

Tinted

Reflective Coating

Same as: 57-III

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

Central Plant \_\_\_\_\_ One System per Building

         Several Small Systems per Building

\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

1) Condition of circular \_\_\_\_\_

2) Circulator capacity \_\_\_\_\_

3) Is aquastat provided?

4) Aquastat temperature setting \_\_\_\_\_

5) Mfg/Model \_\_\_\_\_

6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location \_\_\_\_\_

b. Areas Served

c.. Manufacturer and Model \_\_\_\_\_

d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_

e. Type Heaters & Quantities:

1) Storage \_\_\_\_\_

2) Instantaneous

3) Semi-Instantaneous \_\_\_\_\_

f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

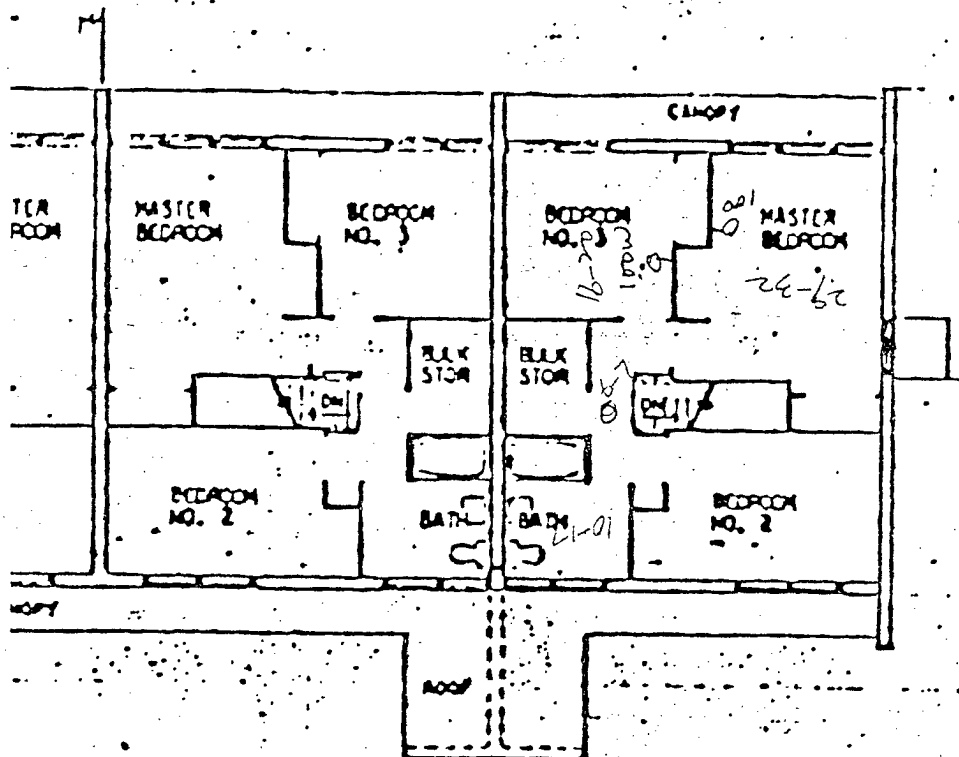
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| KIT FSK | 12/105 | 122         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

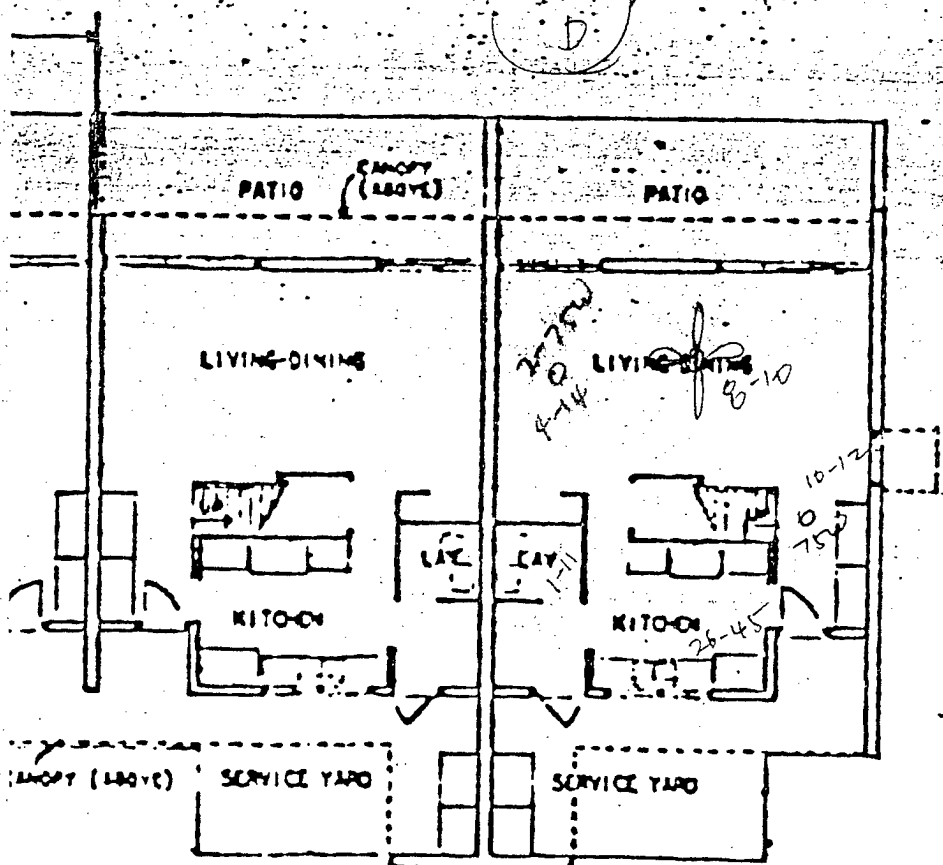




TYPE 57-IX

3903, 3908, 3909, 3910

D



Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3909

Building Type: 57-1X

Apartment: C

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all day every other day

No. of Occupants: 4

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 3

Average No. of Times Dishwasher Used/Day: Not used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

same as  $57 - \overline{111}$

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

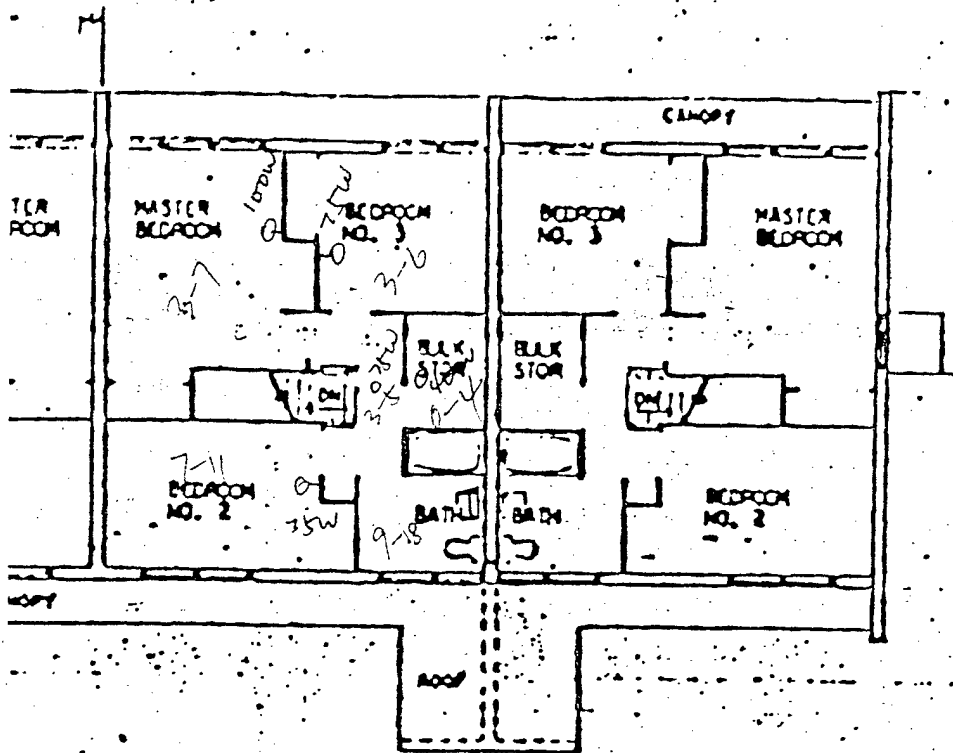
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

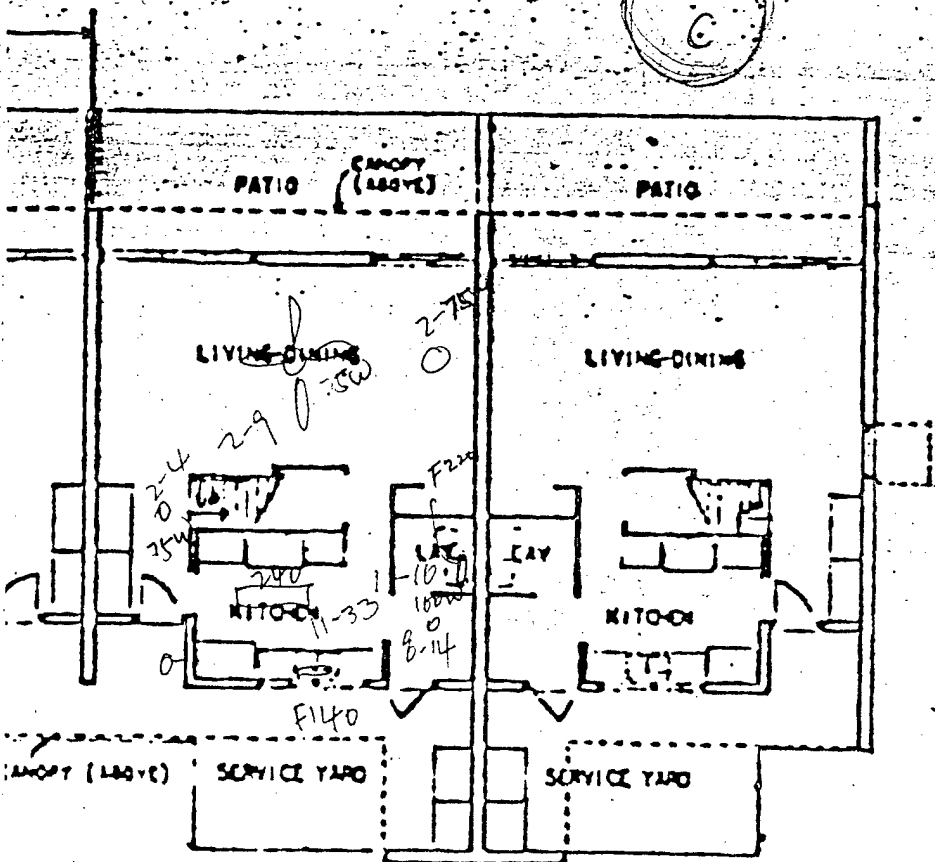
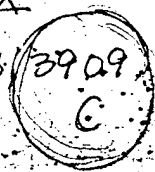
| Fixture       | Flow     | Water Temp. | Remarks |
|---------------|----------|-------------|---------|
| KIT SK        | 1.5ℓ/10s | 114         |         |
| Bathroom Shwr | 5ℓ/10s   | 114         |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |
|               |          |             |         |





TYPE 57-IX

3903, 3908, 3909, 3910



Date: 11/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3909

Building Type: 57-1X

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all Day

No. of Occupants: 5

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: even, other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted \_\_\_\_\_  
Reflective Coating \_\_\_\_\_

same as 57-111

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

\_\_\_\_\_ Central Plant \_\_\_\_\_ One System per Building  
\_\_\_\_\_ Several Small Systems per Building  
\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
\_\_\_\_\_ °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circulator \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
  - 1) Storage \_\_\_\_\_
  - 2) Instantaneous \_\_\_\_\_
  - 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

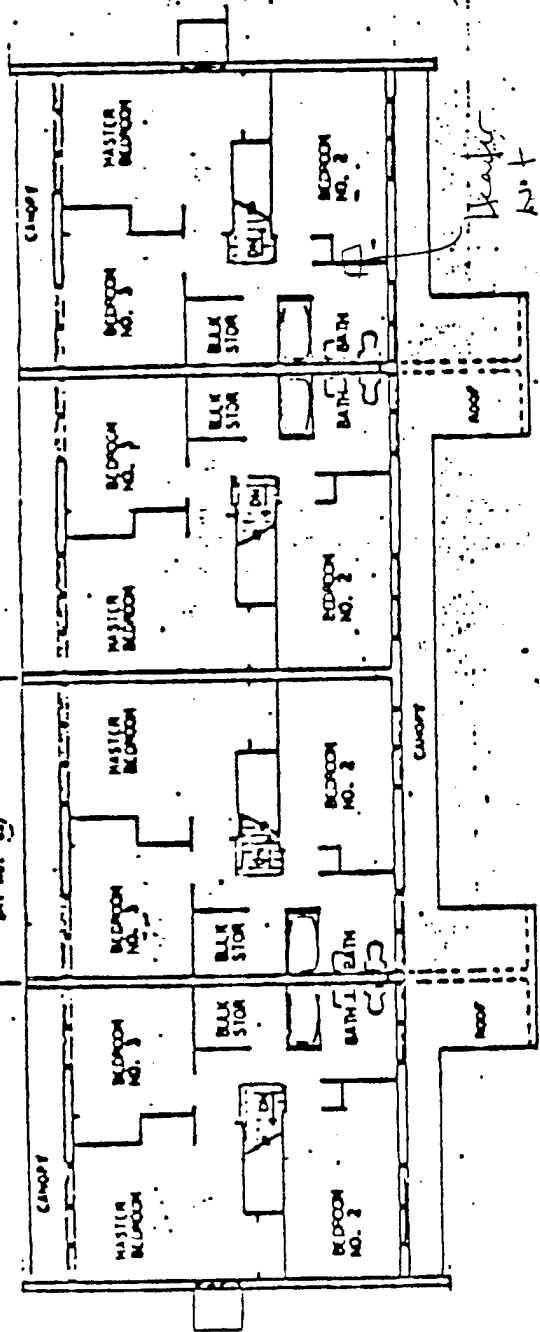
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture         | Flow   | Water Temp. | Remarks |
|-----------------|--------|-------------|---------|
| Kit. Sk         | 32/10s | 96F         |         |
| Bathroom Shower | 22/10s | 96F         |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |
|                 |        |             |         |

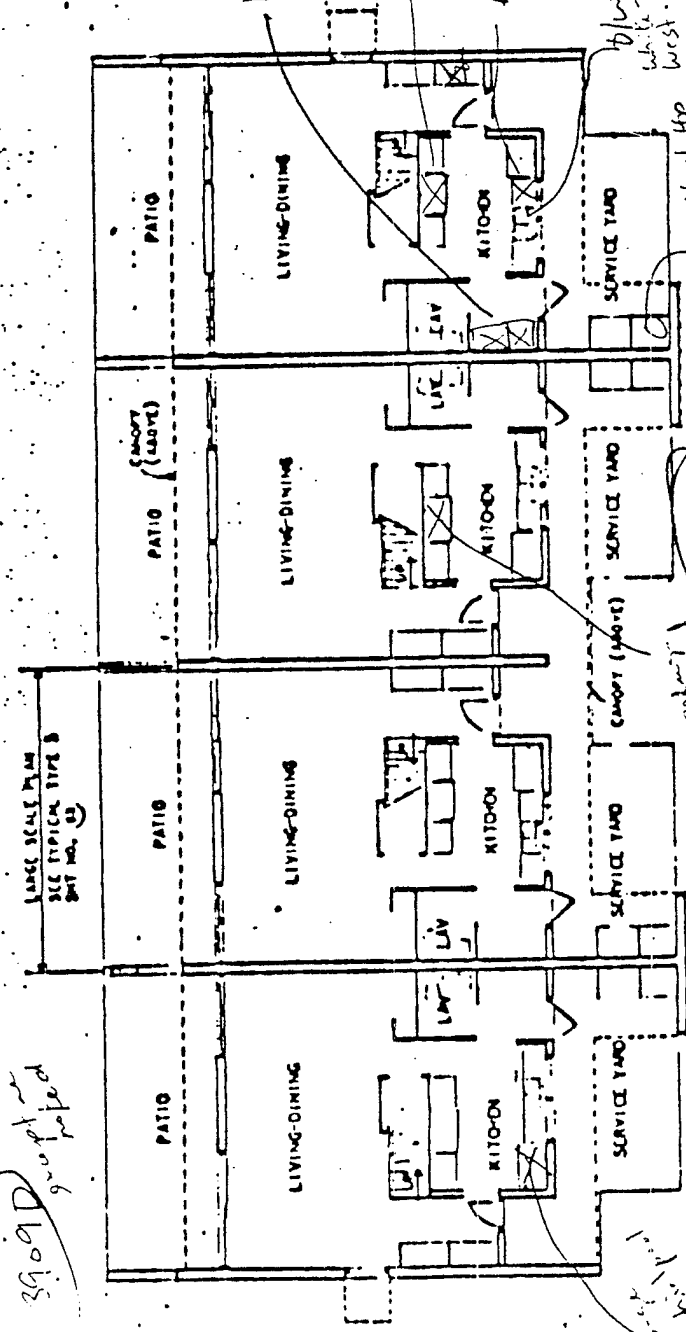


SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

Type 57-IX

BUILDING NUMBERS

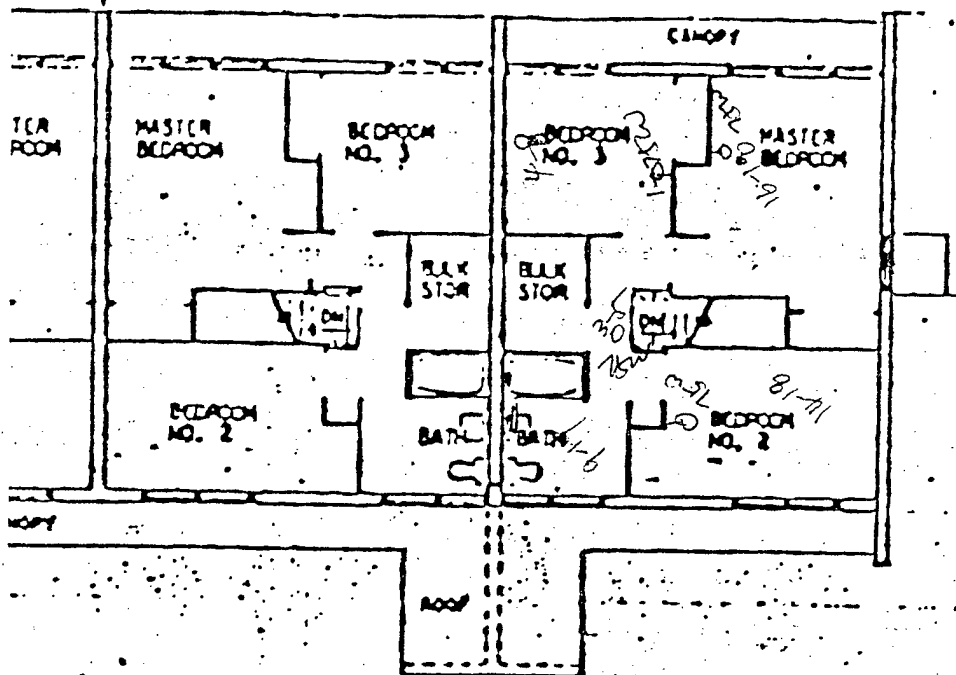
|          |      |      |      |      |      |
|----------|------|------|------|------|------|
| AREA K-1 | 3903 | 3904 | 3905 | 3906 | 3907 |
| AREA I   | 4003 | 4004 | 4005 | 4006 | 4007 |
|          | 4103 | 4104 | 4105 | 4106 | 4107 |
|          | 4203 | 4204 | 4205 | 4206 | 4207 |
|          | 4303 | 4304 | 4305 | 4306 | 4307 |
|          | 4403 | 4404 | 4405 | 4406 | 4407 |
|          | 4503 | 4504 | 4505 | 4506 | 4507 |
|          | 4603 | 4604 | 4605 | 4606 | 4607 |
|          | 4703 | 4704 | 4705 | 4706 | 4707 |
|          | 4803 | 4804 | 4805 | 4806 | 4807 |
|          | 4903 | 4904 | 4905 | 4906 | 4907 |
|          | 5003 | 5004 | 5005 | 5006 | 5007 |



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

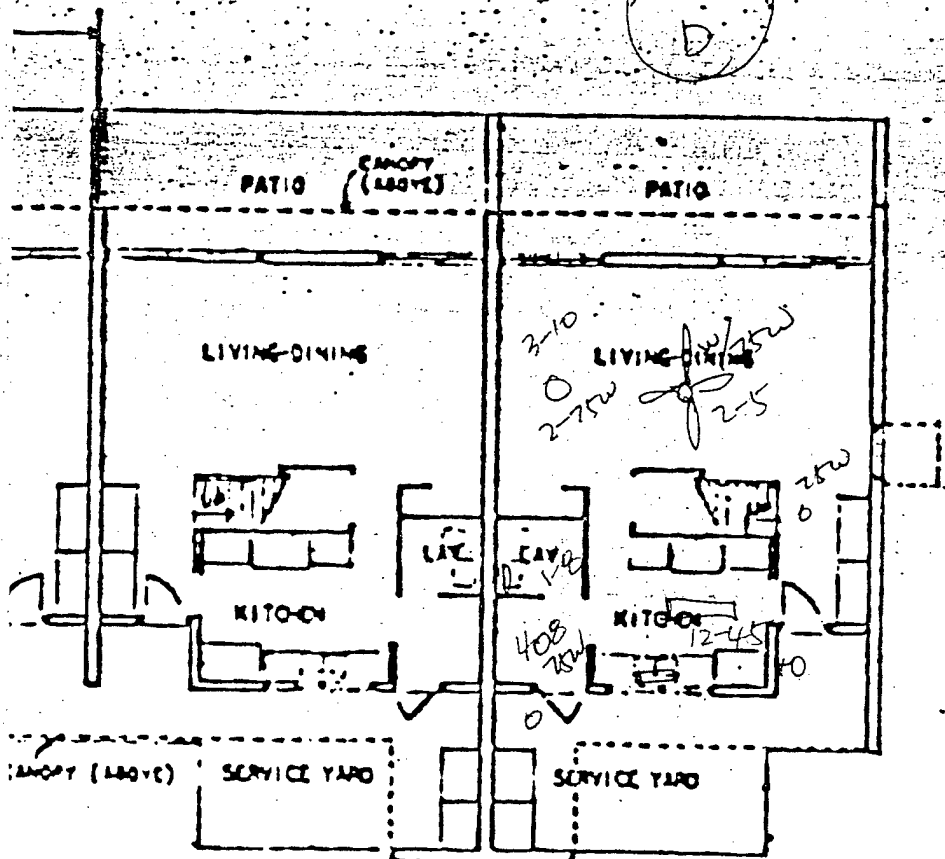
SEE SITE PLAN SHEET (2) (3) (4) (5) FOR LOCATION

|  |                    |
|--|--------------------|
| ACQUISITIONS                                 | FAMILY HOLDING     |
| SECRETARY DATA FOR AIR CONDITIONING PROJECTS |                    |
| CUSTOMER HOLDING SCHEDULE 1957               | LAWS E-1, E-2      |
| FIRST AND SECOND FLOOR PLANS                 | TYPE 5             |
| SCHOOL BUILDINGS                             | MANU. HOUSE        |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN  | COMPS OF ENGINEERS |



TYPE 57-IX

3903, 3908, 3909, 3910



Date: 1/17/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3910

Building Type: 57 - 1X

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as S7-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

### Reflective Coating

### 3.0 HOT WATER SYSTEM

same as 57-111

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- a. Is System Supported from (check one):

       Central Plant                             One System per Building

### Several Small Systems per Building

Individual EWH/Unit

- b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F

- c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

- d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

- e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
- 1) Storage \_\_\_\_\_
- 2) Instantaneous \_\_\_\_\_
- 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

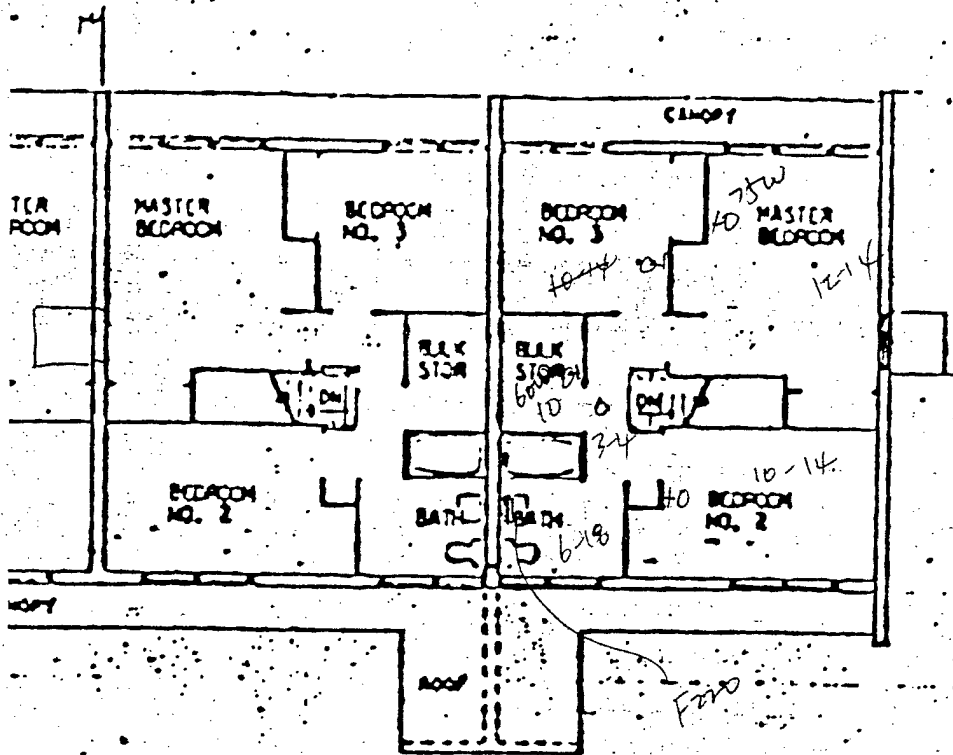
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture         | Flow    | Water Temp. | Remarks |
|-----------------|---------|-------------|---------|
| Bathroom Shower | 2.2/10s | 102         |         |
|                 |         |             |         |
|                 |         |             |         |
|                 |         |             |         |
|                 |         |             |         |
|                 |         |             |         |
|                 |         |             |         |
|                 |         |             |         |
|                 |         |             |         |
|                 |         |             |         |

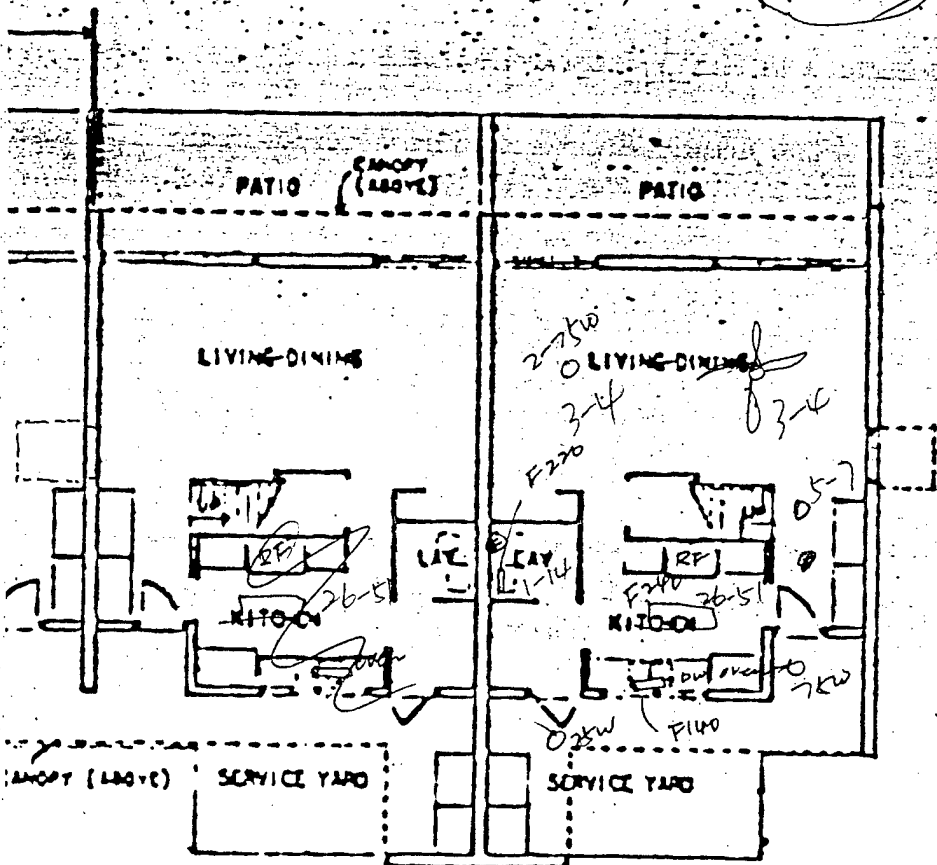






TYPE 57-IX

3903, 3908, 3909, 3910 D



UNIT TYPE 60-I

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3917

Building Type: 60 - I

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 3

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 6

Average No. of Times Dishwasher Used/Day: 3

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted /  
Reflective Coating /

*Same as 57-III*

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

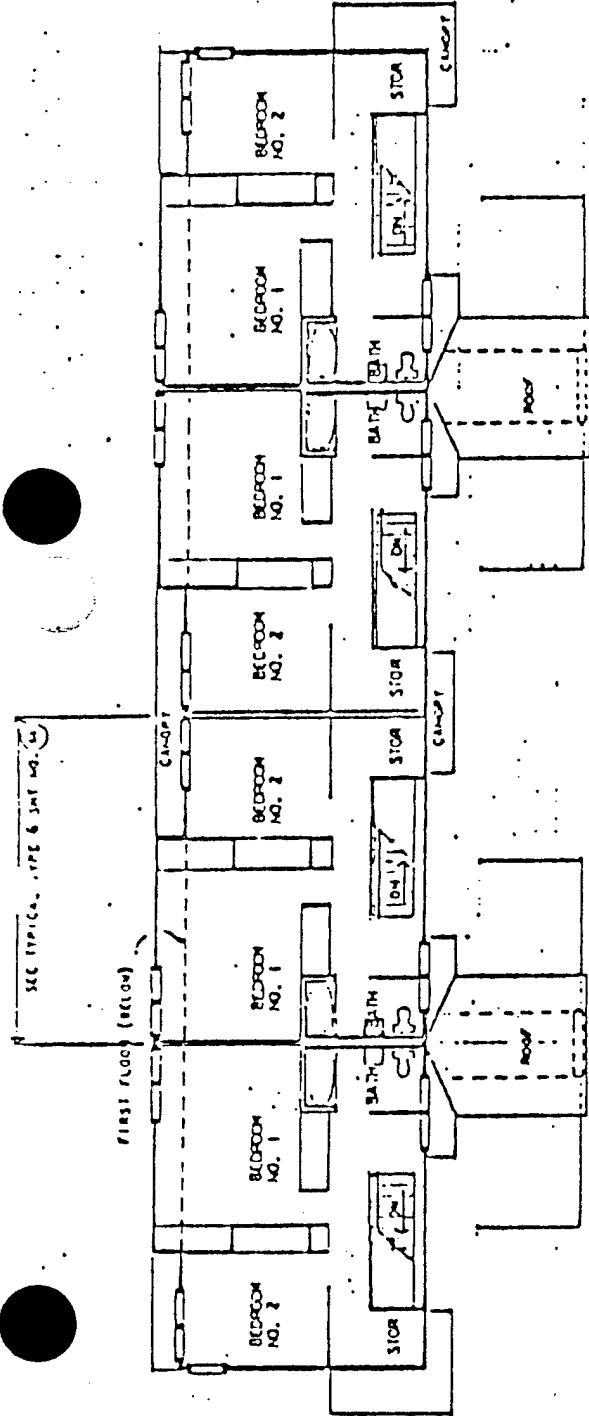
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture           | Flow   | Water Temp. | Remarks |
|-------------------|--------|-------------|---------|
| DN STAIRS<br>LAV. | 12/10s | 114         |         |
|                   |        |             |         |
|                   |        |             |         |
|                   |        |             |         |
|                   |        |             |         |
|                   |        |             |         |
|                   |        |             |         |
|                   |        |             |         |
|                   |        |             |         |
|                   |        |             |         |

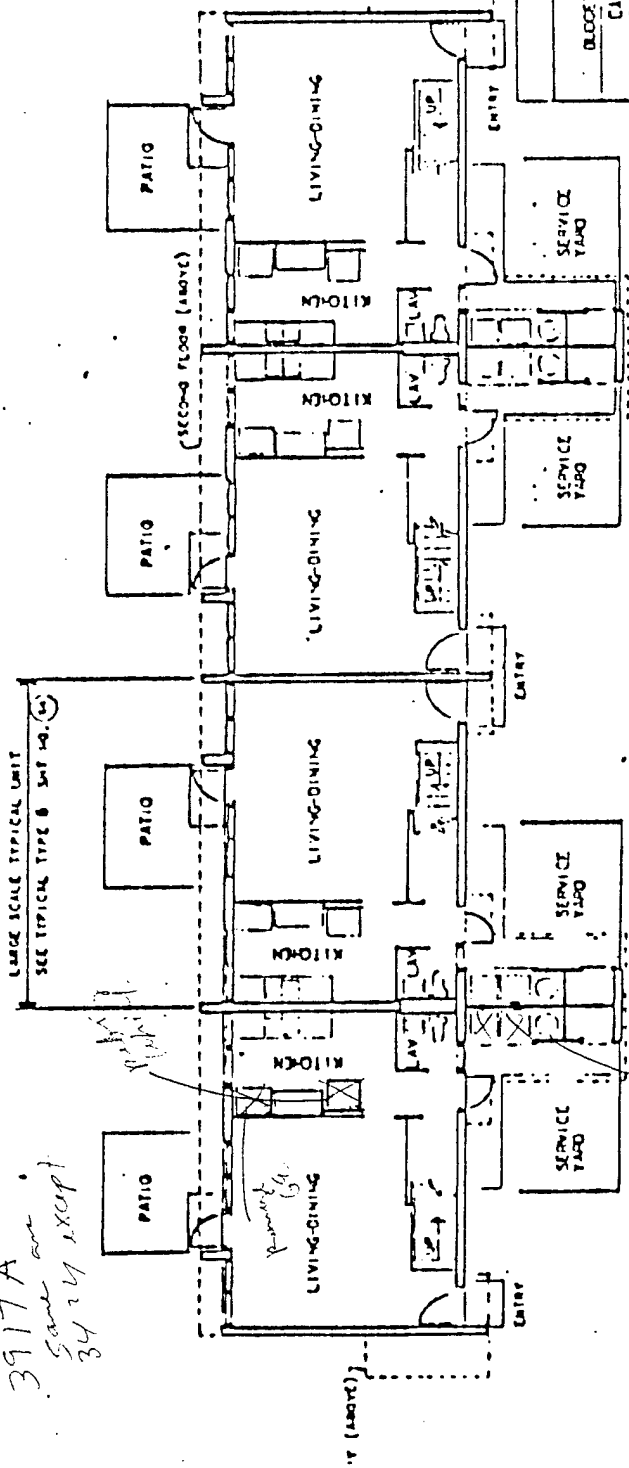


SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3917A  
same as  
3424 except

# Type 60-I

BUILDING NUMBERS  
AREA 1-1 3917, 3929, 3934, 3935  
3941.  
SEE SITE PLAN SHEET 67 FOR  
LOCATION  
AREA 5 1301, 1310, 1323, 1335  
1343, 1347, 1350  
SEE SITE PLAN SHEET 68 FOR  
LOCATION  
AREA 7 1352  
SEE SITE PLAN SHEET 69 FOR  
LOCATION  
CANOPY (ARBIT)

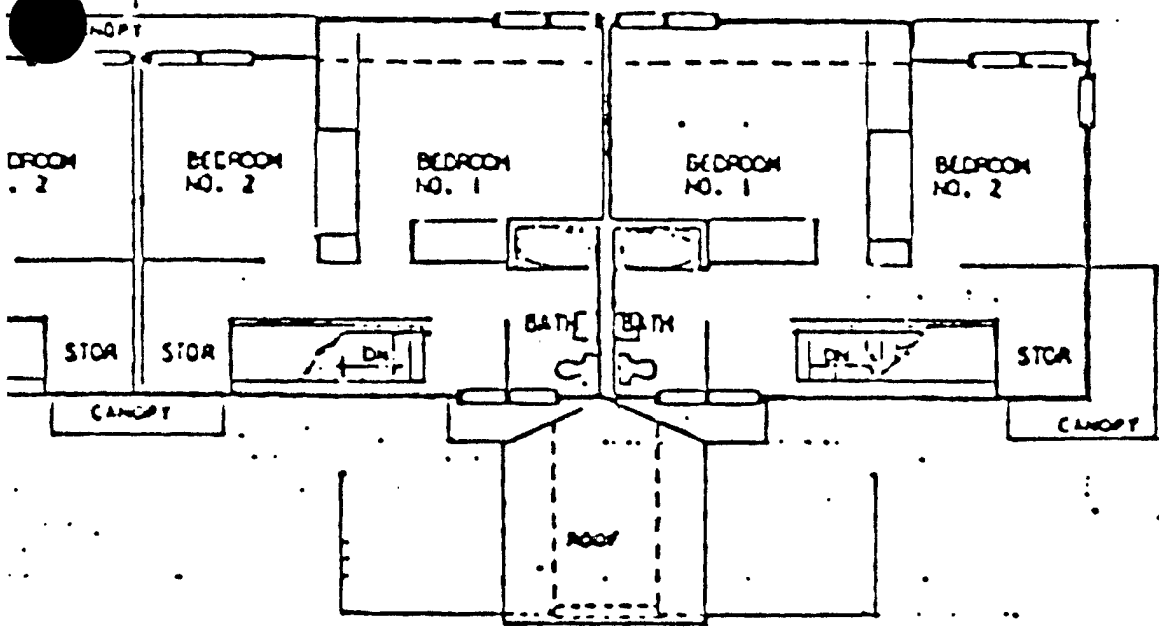


FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

0' 4' 0' 8' 16'  
GRAPHIC SCALE 1/8" = 1'-0"

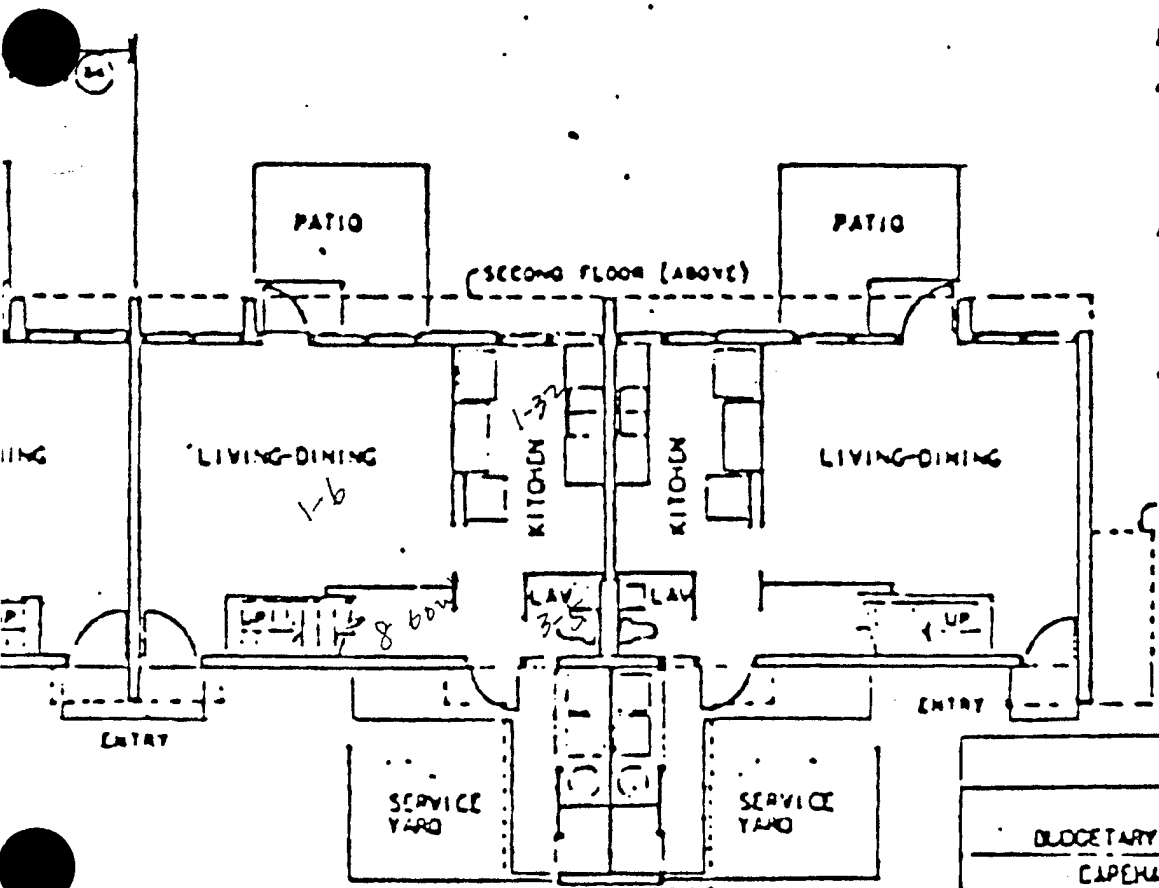
|  |    |    |    |
|--|----|----|----|
| REVISIONS                                      |    |    |    |
| FAMILY HOUSING                                 |    |    |    |
| BLOCCATORY DATA FOR AIR CONDITIONING SUBJECTS  |    |    |    |
| CAPRECHET HOUSING SOWFIELD 1963 AREAS 1-1, 1-7 |    |    |    |
| FIRST AND SECOND FLOOR PLANS TYPE N            |    |    |    |
| SOWFIELD SUBDIVISION                           |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN    |    |    |    |
| CORPS OF ENGINEERS                             |    |    |    |
| HONOLULU, HAWAII                               |    |    |    |
| LOC. CODE 3479                                 | 25 | 23 | 07 |
| DATE   |    |    | 31 |

HT NO. 64



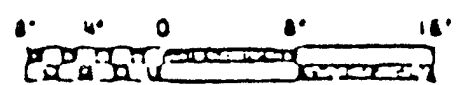
3917 ABCD  
 3924 ABCD  
 3934 ABED  
 3935 ABCD

Type 60-I



BUILDING NUMBERS  
 AREA K-1 3917, 3924, 3934, 3941.  
 SEE SITE PLAN SHEET (6) LOCATION  
 AREA V 1301, 1310, 1323, 1343, 1347, 1350  
 SEE SITE PLAN SHEET (6) LOCATION  
 AREA T 4252  
 SEE SITE PLAN SHEET (6) LOCATION

CANOPY (ABOVE)



| REVISIONS                               |         |
|---|---------|
| FAMILY HOUSING                          |         |
| BUDGETARY DATA FOR AIR CONDITIONING     |         |
| CAPEHART HOUSING SCHOFIELD 1963 AREAS   |         |
| FIRST AND SECOND FLOOR PLANS TYPE       |         |
| SCHOFIELD BARRACKS                      | DATE, M |
| U. S. ARMY ENGINEER DIVISION, PACIFIC O |         |
| CORPS OF ENGINEERS                      |         |
| HONOLULU, HAWAII                        |         |



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3917 D

Building Type: 60-I

Apartment: D

No. Bedrooms: 2

Area: 1

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 3

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as 57-III

Window Yes No  
Tinted /  
Reflective Coating /

Same as 57-III

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

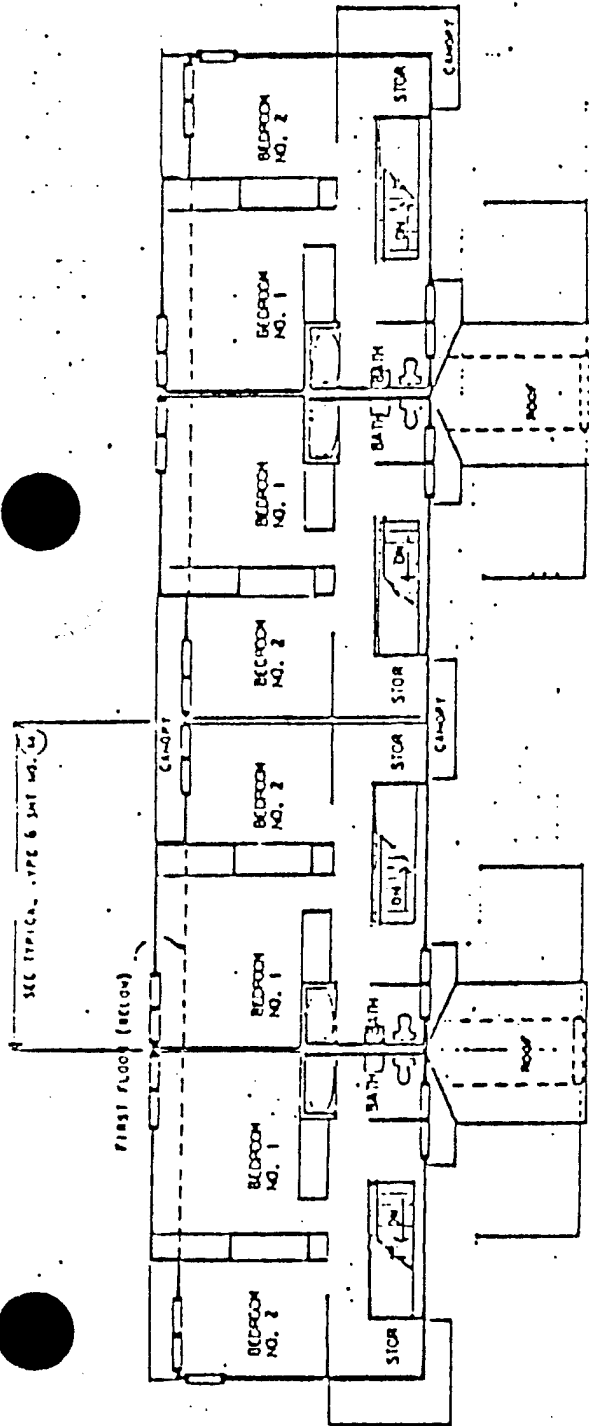
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

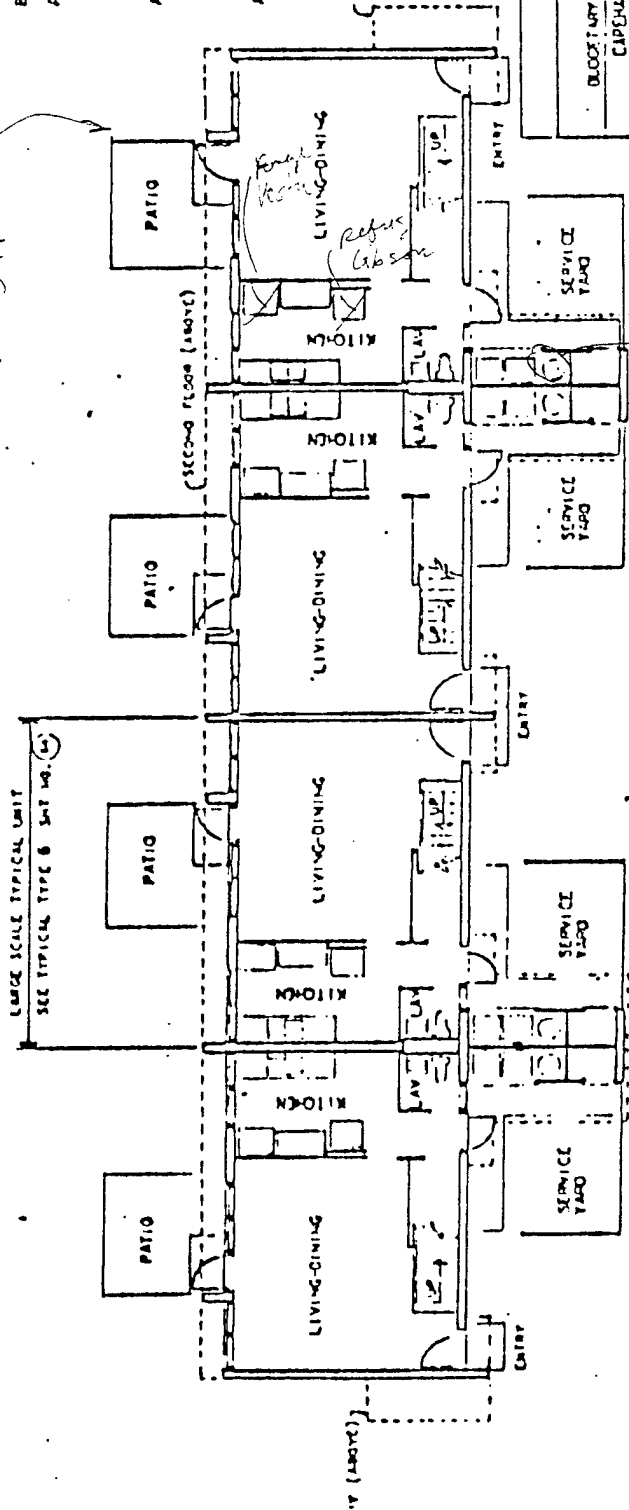
| Fixture     | Flow      | Water Temp. | Remarks                             |
|-------------|-----------|-------------|-------------------------------------|
| Kit SK      | 1.5 l/10s | 118         |                                     |
| Bath Shower | 12/10s    | 118         | Super Saver Shower Head by Teledyne |
|             |           |             |                                     |
|             |           |             |                                     |
|             |           |             |                                     |
|             |           |             |                                     |
|             |           |             |                                     |
|             |           |             |                                     |
|             |           |             |                                     |



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

Type 60-I

3917D



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

BUILDING NUMBERS  
AREA K-1 3917, 3924, 3934, 3935  
3941.  
SEE SITE PLAN SHEET 67 FOR  
LOCATION  
AREA V 1301, 1310, 1323, 1333  
1343, 1347, 1350  
SEE SITE PLAN SHEET 69 FOR  
LOCATION  
AREA T 4232  
SEE SITE PLAN SHEET 68 FOR  
LOCATION

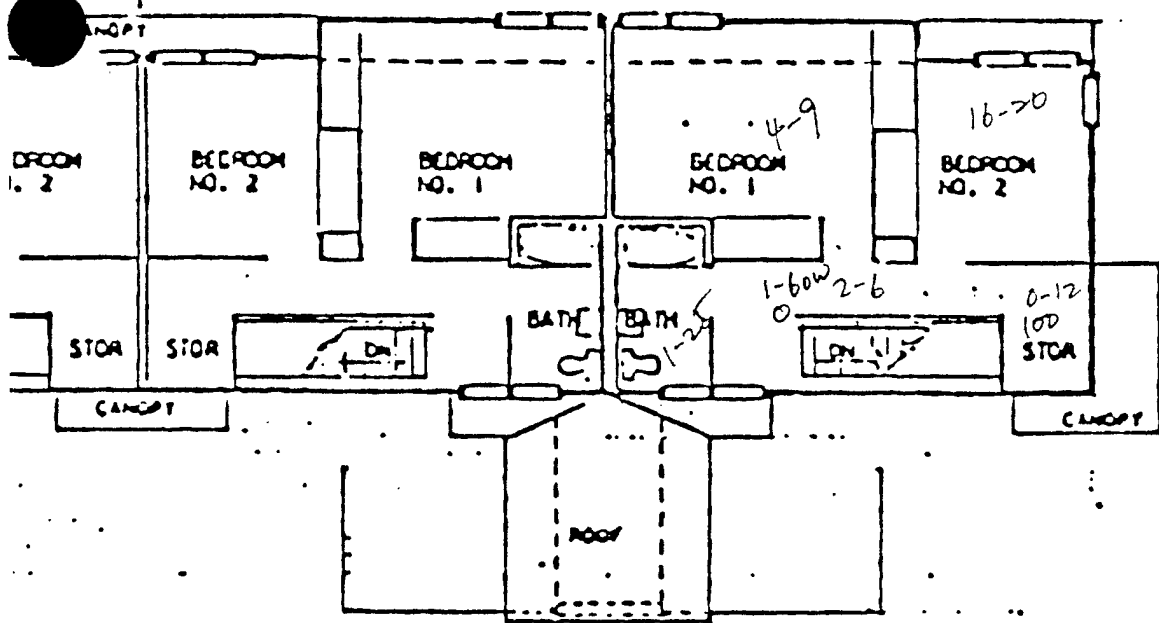
CLOSET (above)

| REVISIONS  |    |    |      |
|--|----|----|------|
| BLOODY DATA FOR AIR CONDITIONING SCHEDULES           |    |    |      |
| CAPENHART HOUSING SCHEDULE 1963 APPLICABLE TO TYPE M |    |    |      |
| FIRST AND SECOND FLOOR PLANS                         |    |    |      |
| SCHEMATIC DRAWINGS                                   |    |    |      |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN          |    |    |      |
| CORPS OF ENGINEERS                                   |    |    |      |
| HONOLULU, HAWAII                                     |    |    |      |
| LOC. CODE 3279                                       | 25 | 23 | 07   |
|  |    |    | 391. |
|  |    |    | 31   |

MAY 1973

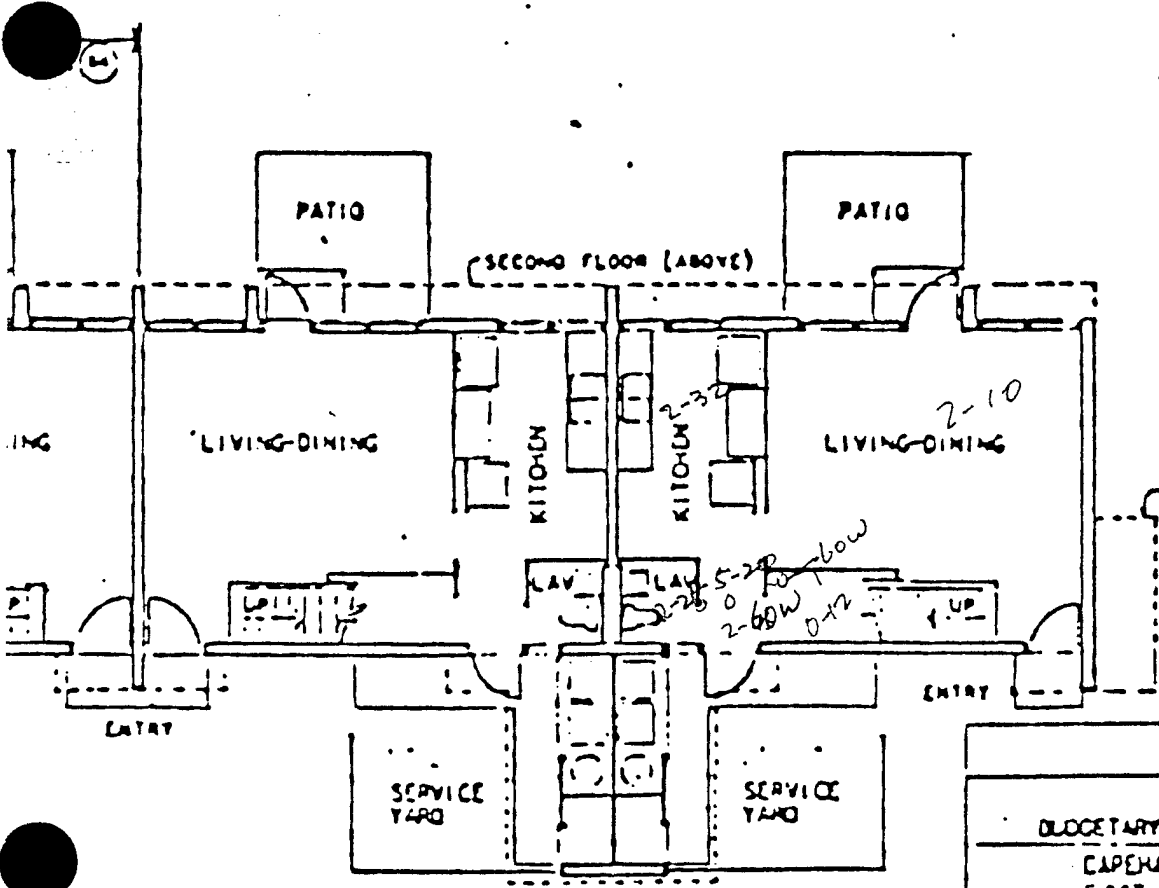
76

AT NO. 64



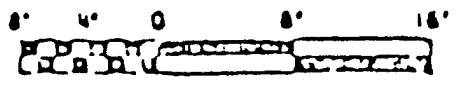
3917 ABCD  
 3924 ABCD  
 3934 ABED  
 3935 ABCD

# Type 60-I



BUILDING NUMBERS  
 AREA K-1 3917, 3924, 3934, 3941.  
 SEE SITE PLAN SHEET (LOCATION)  
 AREA V 1301, 1310, 1323, 1343, 1347, 1350.  
 SEE SITE PLAN SHEET (LOCATION)  
 AREA T 4252  
 SEE SITE PLAN SHEET (LOCATION)

CANOPY (ABOVE)



| REVISIONS  |         |
|--|---------|
| FAMILY HOUSING   |         |
| BUDGETARY DATA FOR AIR CONDITIONING                      |         |
| CAPEHART HOUSING SCHOFIELD 1963 AREA                     |         |
| FIRST AND SECOND FLOOR PLANS                             | TYPE    |
| SCHOFIELD BARRACKS                                       | DATA, H |
| U. S. ARMY ENGINEER DIVISION, PACIFIC CORPS OF ENGINEERS |         |
| HONOLULU, HAWAII   |         |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3924

Building Type: Lo - I

Apartment: A

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8

No. of Occupants: 4

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 12

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 2.0 ARCHITECTURAL

### Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Conc. (down) \_\_\_\_\_

Wood (up) \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Wood Roof \_\_\_\_\_

Asphalt shingles \_\_\_\_\_

Grp. Conc. \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as  
57-III



same as 57-III

### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

- a. Is System Supported from (check one):
- \_\_\_\_\_ Central Plant                      \_\_\_\_\_ One System per Building
- \_\_\_\_\_ Several Small Systems per Building
- \_\_\_\_\_ Individual EWH/Unit
- b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
\_\_\_\_\_ °F
- c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_
- e. Is Hot Water Circulated? \_\_\_\_\_
- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
- 1) Storage \_\_\_\_\_
- 2) Instantaneous \_\_\_\_\_
- 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

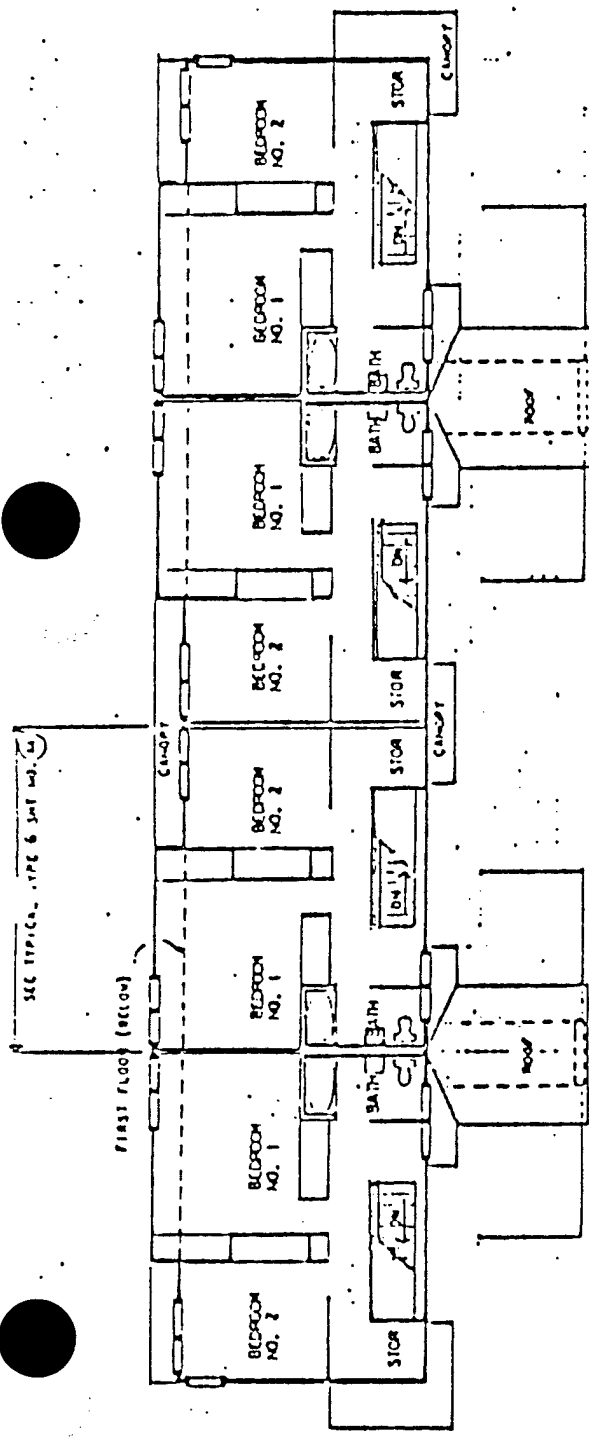
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture     | Flow     | Water Temp. | Remarks |
|-------------|----------|-------------|---------|
| Kit SK      | 1.5l/10s | 130F        |         |
| Bath Shower | 2l/10s   | 130         |         |
|             |          |             |         |
|             |          |             |         |
|             |          |             |         |
|             |          |             |         |
|             |          |             |         |
|             |          |             |         |



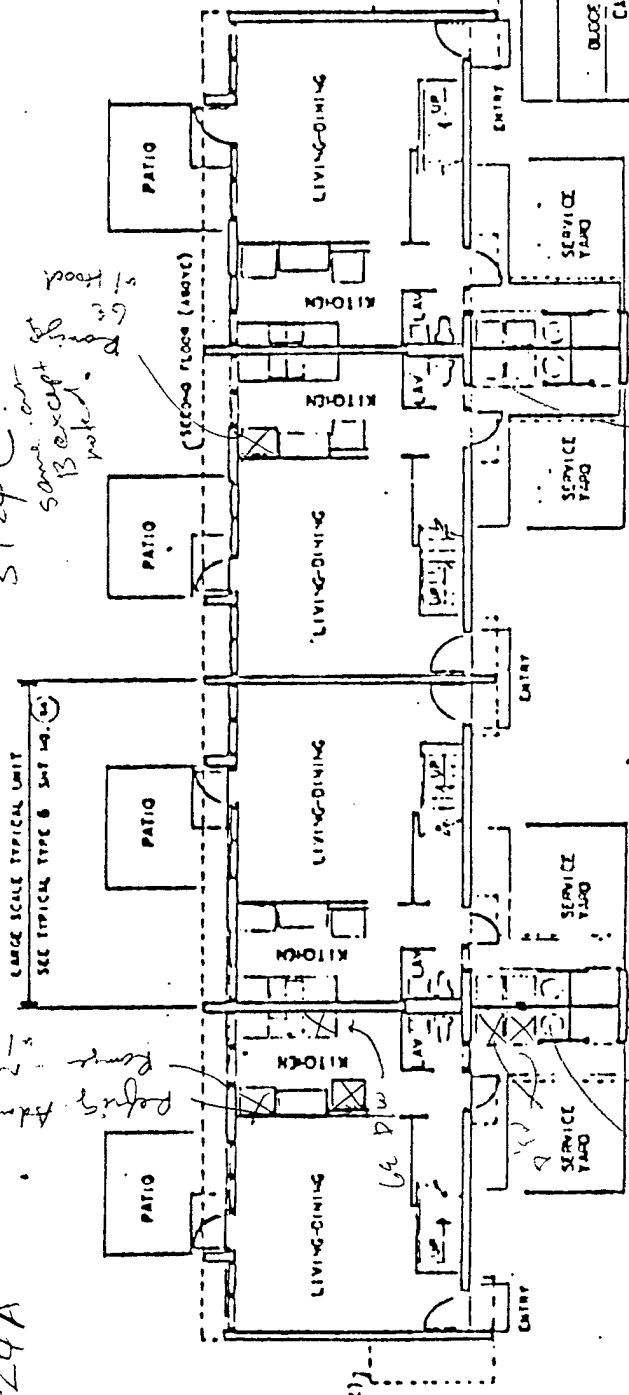
SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3924A

3924C  
some on  
B except  
noted.

# Type 60-I

BUILDING NUMBER  
AREA 1 3917, 3924, 3934, 3935  
3941.  
SEE SITE PLAN SHEET 01 FOR  
LOCATION  
AREA 2 1301, 1310, 1323, 1335  
1343, 1347, 1350  
SEE SITE PLAN SHEET 01 FOR  
LOCATION  
AREA 3 4252  
SEE SITE PLAN SHEET 01 FOR  
LOCATION



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

0' 0" 0' 0" 18'  
GRAPHIC SCALE 1/8" = 1'-0"

| REVISIONS                                     |    |    |    |    |    |  |  |  |  |
|---|----|----|----|----|----|--|--|--|--|
| FAMILY HOUSING                                |    |    |    |    |    |  |  |  |  |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS  |    |    |    |    |    |  |  |  |  |
| CAPRENT HOUSING SCHEDULE 1963 TYPES E-I, F, G |    |    |    |    |    |  |  |  |  |
| FIRST AND SECOND FLOOR PLANS TYPE M           |    |    |    |    |    |  |  |  |  |
| SC-OF-110 BARRACKS                            |    |    |    |    |    |  |  |  |  |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN   |    |    |    |    |    |  |  |  |  |
| COMPS OF ENGINEERS                            |    |    |    |    |    |  |  |  |  |
| HONOLULU, HAWAII                              |    |    |    |    |    |  |  |  |  |
| LOC. CODE 3939                                | 25 | 23 | 07 | 24 | 21 |  |  |  |  |

MAY 1973

78



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3924

Building Type: 60-I

Apartment: C

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8

No. of Occupants: 2

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1x per week

Remarks: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-II

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

### Reflective Coating

Same as 57-III

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

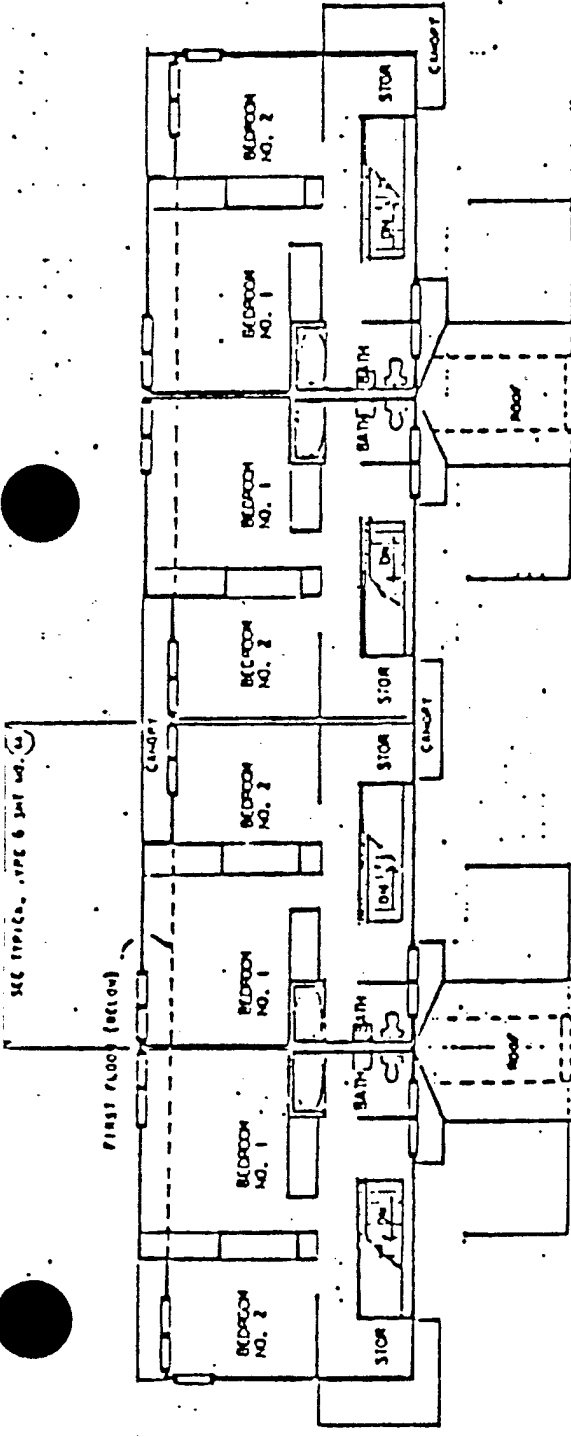
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow    | Water Temp. | Remarks |
|---------|---------|-------------|---------|
| KIT SK  | 2 1/105 | 102         |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |



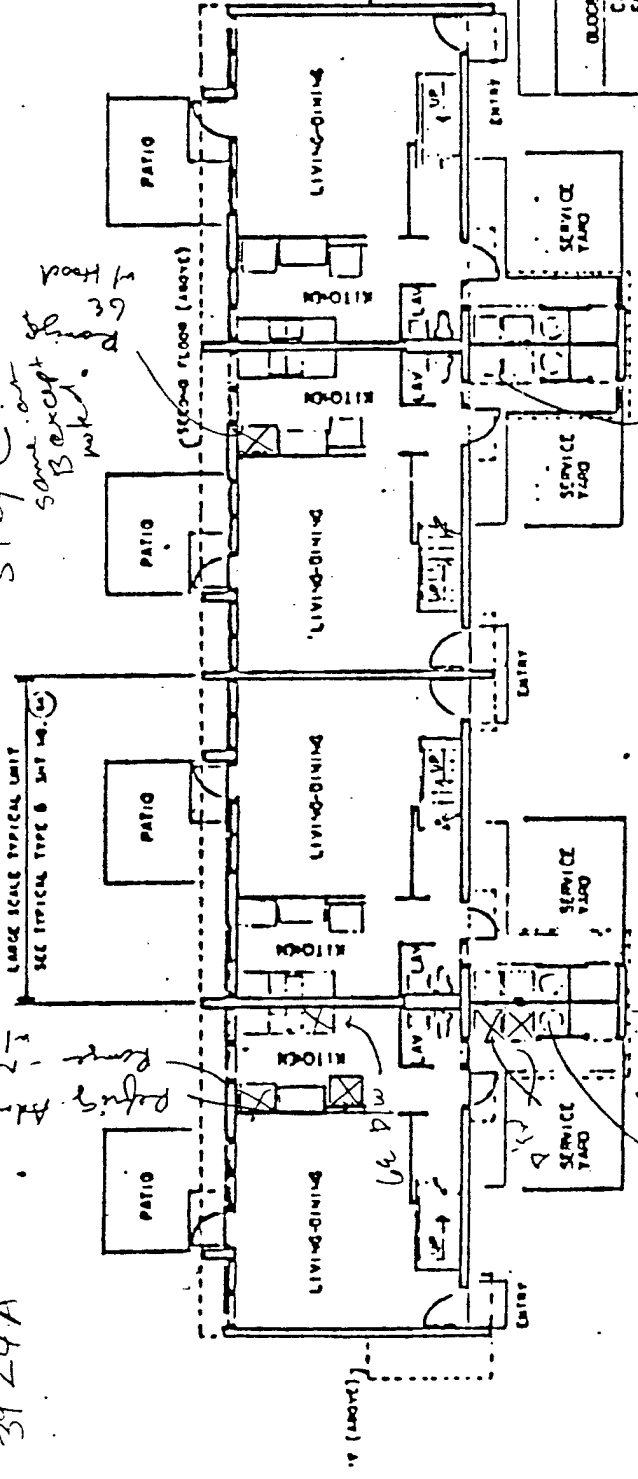


39 Z4A  
SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

Refrigerator  
Range - No. 1  
Sink  
Stove

39 Z4C  
some on  
Baptist  
work.

39 Z4A  
LARGE SCALE TYPICAL UNIT  
SEE TYPICAL TYPE 6 SHEET NO. 11



Refrigerator  
Range - No. 1  
Sink  
Stove

39 Z4A  
FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

0' 0" 8' 0" 16'  
GRAPHIC SCALE 1/8" = 1'-0"

# Type 60-I

BUILDING NUMBERS  
AREA 1-1 3917, 3924, 3934, 3935  
3941  
SEE SITE PLAN SHEET 67 FOR  
LOCATION  
AREA 2 1301, 1310, 1323, 1335  
1343, 1347, 1350  
SEE SITE PLAN SHEET 68 FOR  
LOCATION  
AREA 3 1352  
SEE SITE PLAN SHEET 69 FOR  
LOCATION

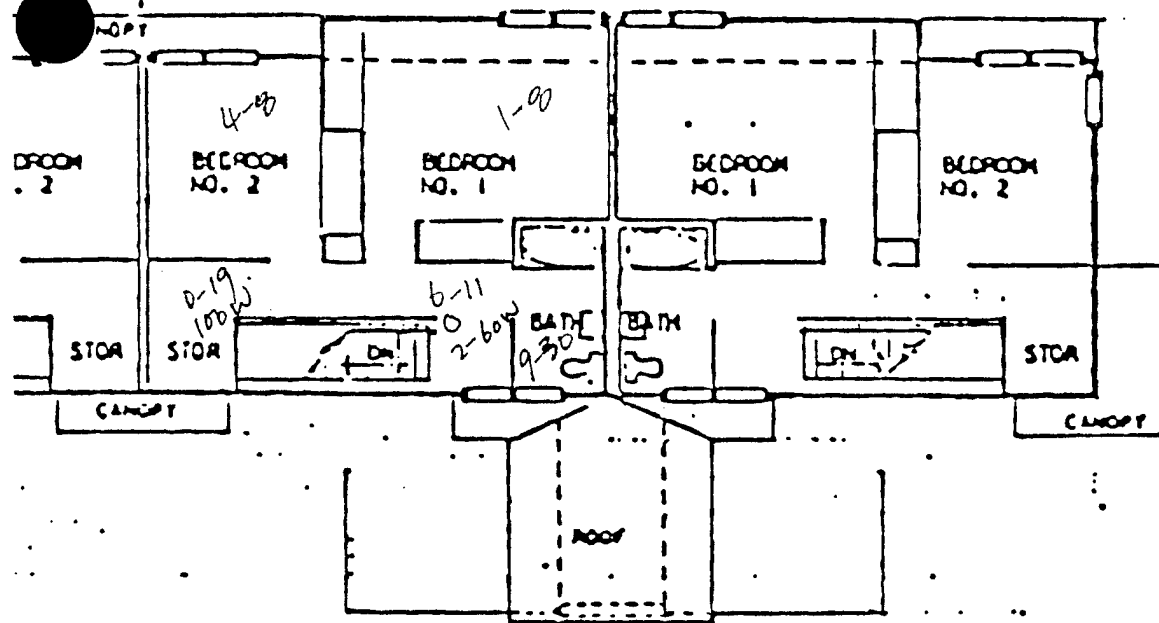
CANOPY (above)

| REVISIONS                                      |    |    |    |    |
|--|----|----|----|----|
| FAMILY HOUSING                                 |    |    |    |    |
| BIOGRAPHIC DATA FOR AIR CEMENTING PROJECTS     |    |    |    |    |
| CAMPBELL HOUSING PROJECT, 1963 AREAS 1-1, 2, 3 |    |    |    |    |
| FIRST AND SECOND FLOOR PLANS TYPE 60-I         |    |    |    |    |
| SCOTTED BARRICKS                               |    |    |    |    |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN    |    |    |    |    |
| COMPS OF ENGINEERS                             |    |    |    |    |
| HONOLULU, HAWAII                               |    |    |    |    |
| LSC CODE 3949                                  | 25 | 23 | 07 | 31 |

MAY 1973

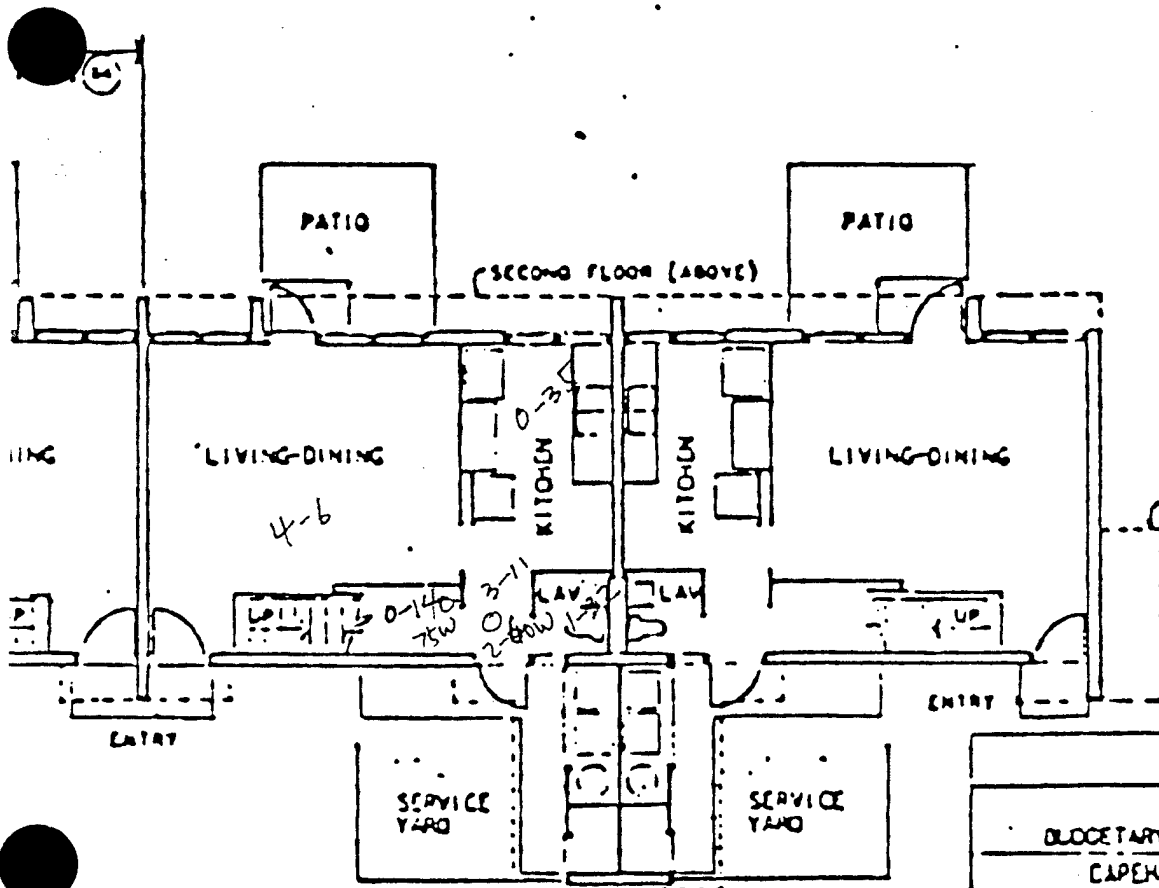
78

AT NO. 14



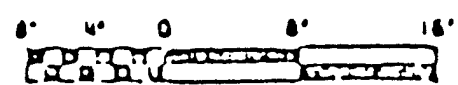
3917 ABCD  
3924 ABCD  
3934 ABED  
3935 ABCD

# Type 60-I



- BUILDING NUMBERS**
- AREA K-1 3917, 3924, 3934, 3941.  
SEE SITE PLAN SHEET (6) LOCATION
- AREA V 1301, 1310, 1323, 1343, 1347, 1350  
SEE SITE PLAN SHEET (6) LOCATION
- AREA T 4252  
SEE SITE PLAN SHEET (6) LOCATION

CANOPY (ABOVE)



| REVISIONS                               |         |
|---|---------|
| FAMILY HOUSING                          |         |
| BLOCATORY DATA FOR AIR CONDITIONING     |         |
| CAPEHART HOUSING SCHOFIELD 1963 AREA    |         |
| FIRST AND SECOND FLOOR PLANS TYPE       |         |
| SCHOFIELD BARRACKS                      | DATE, M |
| U. S. ARMY ENGINEER DIVISION, PACIFIC O |         |
| CORPS OF ENGINEERS                      |         |
| HONOLULU, HAWAII                        |         |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3934

Building Type: 60-1

Apartment: C

No. Bedrooms: 2

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 3

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 5

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

*Same as ST-III*

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*Conc. wall*

*wood siding*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

*wood roof*

*asphalt shingles*

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*Same as 57-III*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

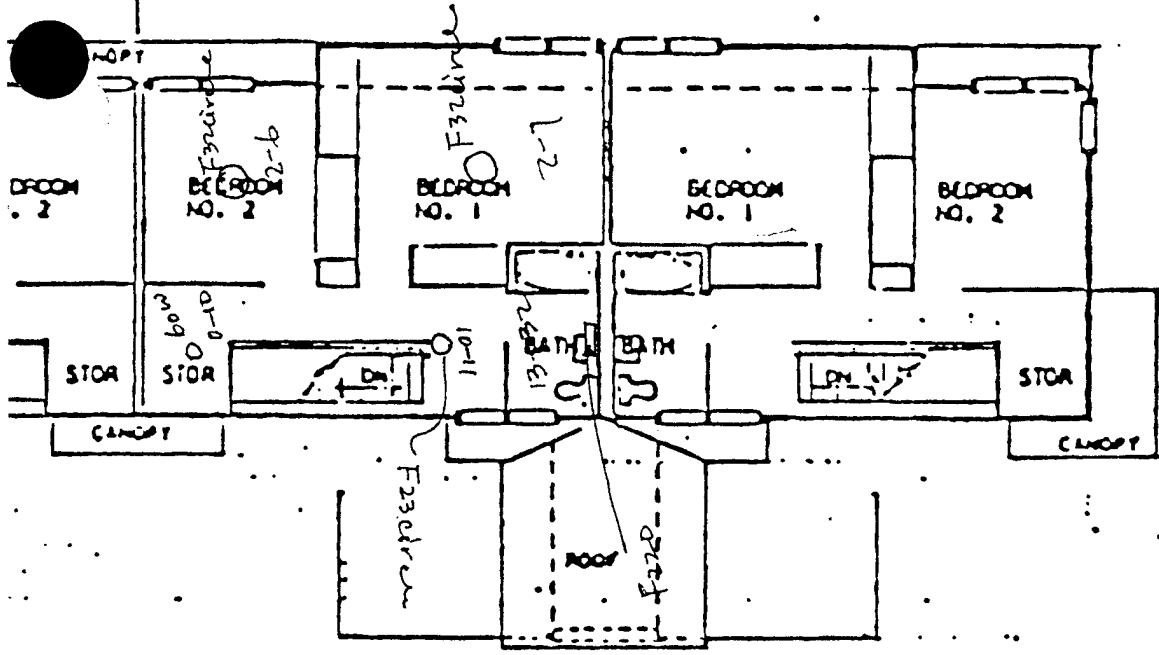
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

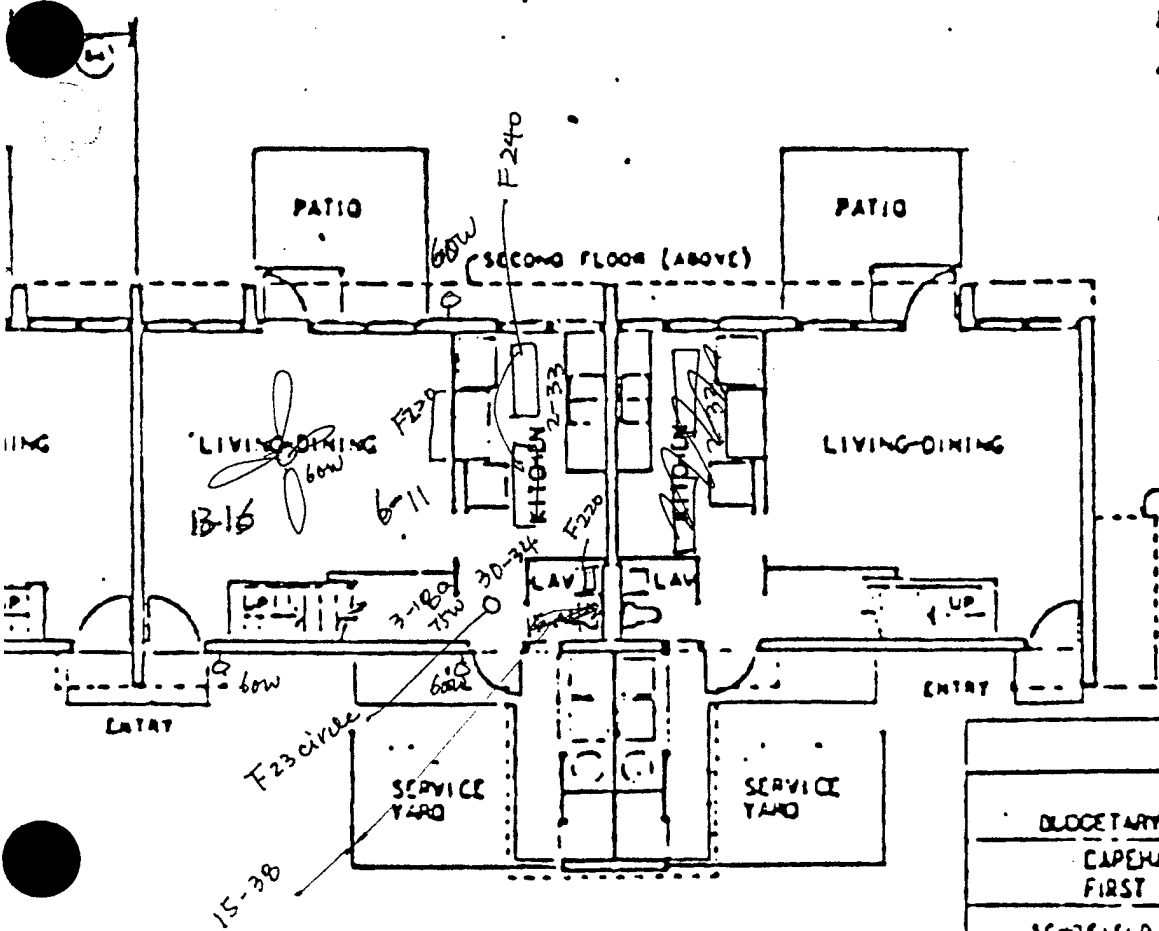
| Fixture | Flow     | Water Temp. | Remarks     |
|---------|----------|-------------|-------------|
| KIT SK  | 1.52/10s | 130°        | ul Flow Red |
|         |          |             |             |
|         |          |             |             |
|         |          |             |             |
|         |          |             |             |
|         |          |             |             |
|         |          |             |             |
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|         |          |             |             |
|         |          |             |             |





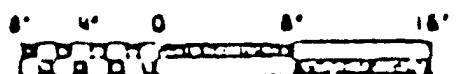
3917 ABCD  
 3924 ABCD  
 3934 ABCD  
 3935 ABCD

# Type 60-I



BUILDING NUMBERS  
 AREA K-1 3917, 3924, 3934, 3941.  
 SEE SITE PLAN SHEET ( ) LOCATION  
 AREA V 1301, 1310, 1323, 1343, 1347, 1350  
 SEE SITE PLAN SHEET ( ) LOCATION  
 AREA T 4252  
 SEE SITE PLAN SHEET ( ) LOCATION

CANOPY (ABOVE)



| REVISIONS                               |         |
|---|---------|
| FAMILY HOUSING                          |         |
| DIODETARY DATA FOR AIR CONDITIONING     |         |
| CAPEHART HOUSING SCHOFIELD 1963 AREA    |         |
| FIRST AND SECOND FLOOR PLANS TYPE       |         |
| SCHOFIELD BARRACKS                      | DATE, H |
| U. S. ARMY ENGINEER DIVISION, PACIFIC C |         |
| CORPS OF ENGINEERS                      |         |
| HONOLULU, HAWAII                        |         |



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3935  
Building Type: 60-I  
Apartment: B  
No. Bedrooms: 2  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: \_\_\_\_\_  
No. of Occupants: 2  
Average No. of Showers/Day: 4  
Average No. of Laundry Loads/Week: 5  
Average No. of Times Dishwasher Used/Day: 1 week  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

*Same as 57-III*

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted \_\_\_\_\_  
Reflective Coating \_\_\_\_\_

3.0 HOT WATER SYSTEM

*Same as 57-III*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

\_\_\_\_\_ Central Plant \_\_\_\_\_ One System per Building  
\_\_\_\_\_ Several Small Systems per Building  
\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
\_\_\_\_\_ °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

1) Condition of circulator \_\_\_\_\_  
2) Circulator capacity \_\_\_\_\_  
3) Is aquastat provided? \_\_\_\_\_  
4) Aquastat temperature setting \_\_\_\_\_  
5) Mfg/Model \_\_\_\_\_  
6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

a. Location \_\_\_\_\_  
b. Areas Served \_\_\_\_\_  
c. Manufacturer and Model \_\_\_\_\_  
d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_  
e. Type Heaters & Quantities:  
1) Storage \_\_\_\_\_  
2) Instantaneous \_\_\_\_\_  
3) Semi-Instantaneous \_\_\_\_\_  
f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

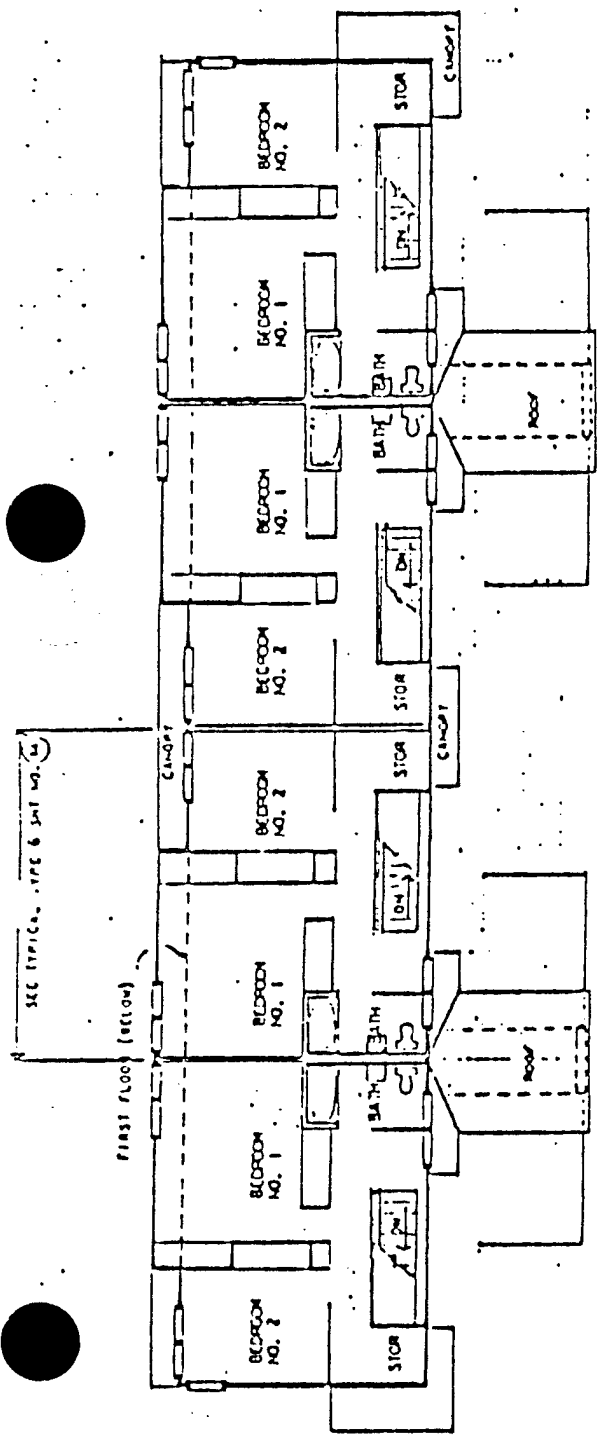
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

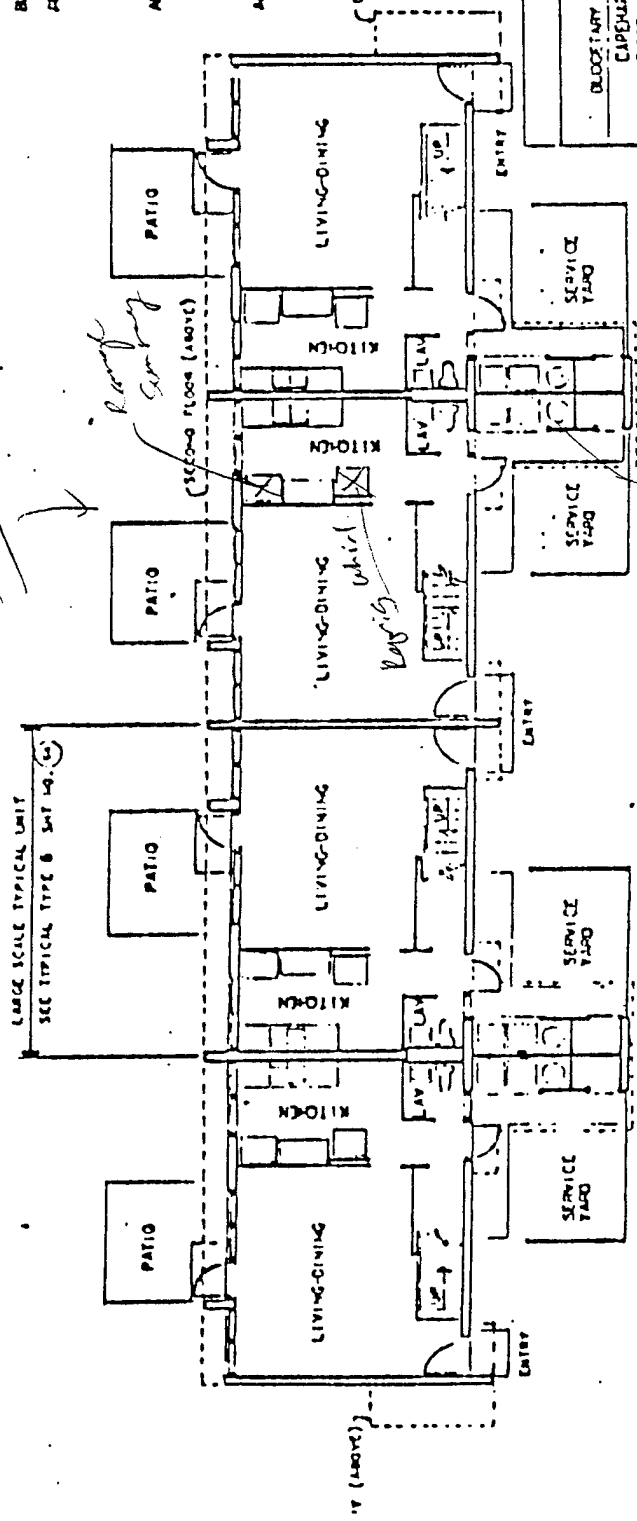
### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks    |
|---------|--------|-------------|------------|
| Kit. SK | 12/100 | 120         |            |
| Shower  | 12/100 | 120         | reg. head. |
|         |        |             |            |
|         |        |             |            |
|         |        |             |            |
|         |        |             |            |
|         |        |             |            |
|         |        |             |            |



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3935B



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

Type 60-I

BUILDING NUMBER  
AREA X-1 3917, 3924, 3934, 3935  
SEE SITE PLAN SHEET 07 FOR  
LOCATION  
AREA Y 1301, 1310, 1323, 1335  
1343, 1347, 1350  
SEE SITE PLAN SHEET 07 FOR  
LOCATION  
AREA Z 1352  
SEE SITE PLAN SHEET 08 FOR  
LOCATION

CORRIDOR (ABOVE)

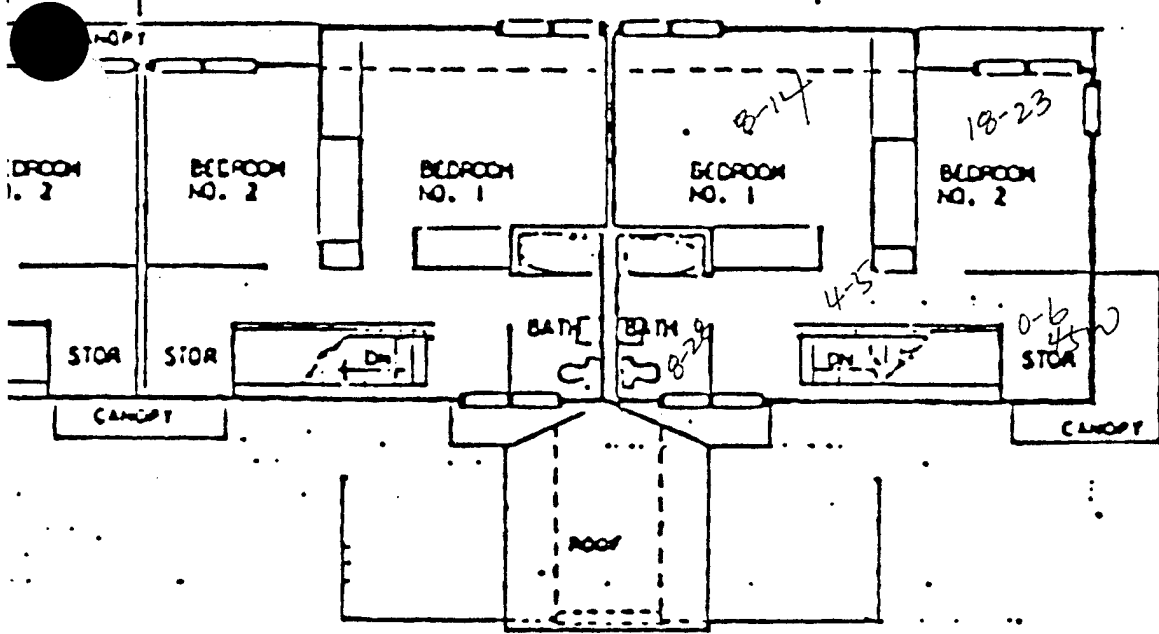
| REVISIONS                                     |    |    |    |     |    |  |  |  |  |
|---|----|----|----|-----|----|--|--|--|--|
| FAMILY HOUSING                                |    |    |    |     |    |  |  |  |  |
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS  |    |    |    |     |    |  |  |  |  |
| CAPEHART HOUSING SCHEDULE 1963 TYPE E-I, I, V |    |    |    |     |    |  |  |  |  |
| FIRST AND SECOND FLOOR PLANS TYPE N           |    |    |    |     |    |  |  |  |  |
| SCAFFOLD DRAWINGS                             |    |    |    |     |    |  |  |  |  |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN   |    |    |    |     |    |  |  |  |  |
| COMPS OF ENGINEERS                            |    |    |    |     |    |  |  |  |  |
| HONOLULU, HAWAII                              |    |    |    |     |    |  |  |  |  |
| LOC. CODE 3499                                | 25 | 23 | 07 | 347 | 21 |  |  |  |  |

8' 0" 0' 8' 16'  
GRAPHIC SCALE 1/8" = 1'-0"

MAY 1973

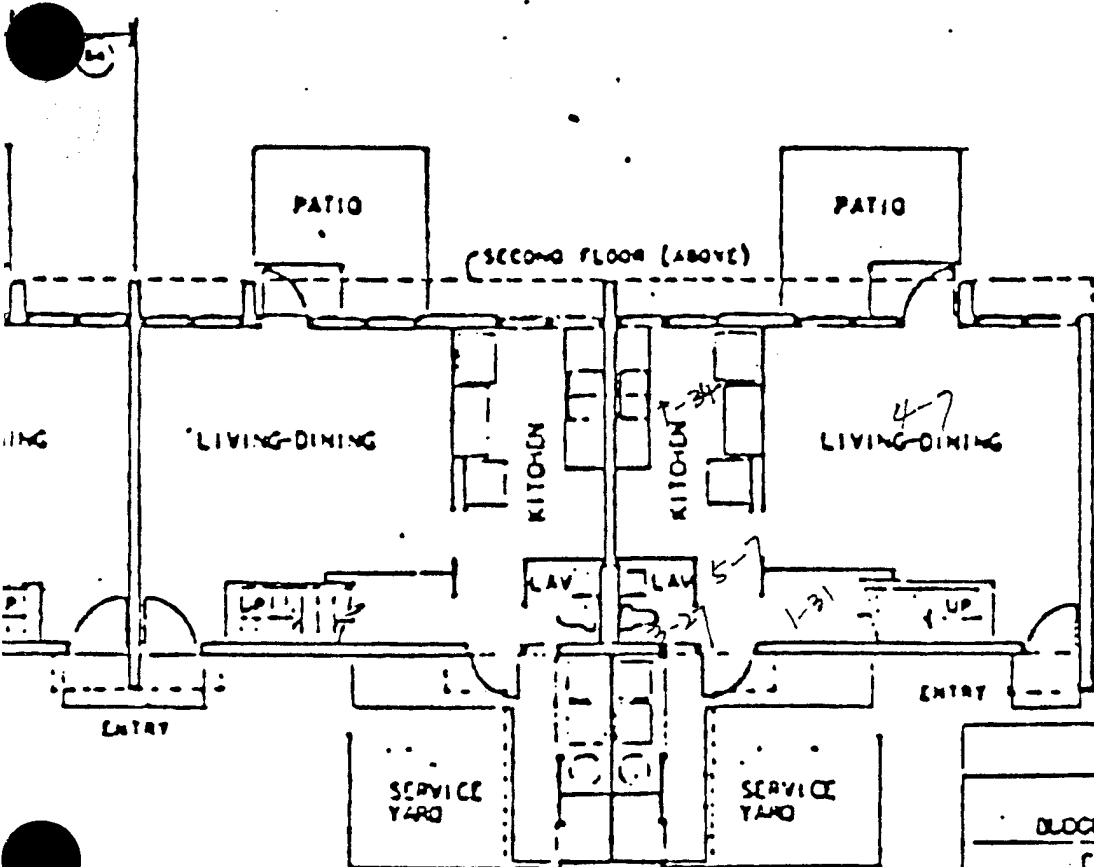
78

AT NO. 14



3917 ABCD  
 3924 ABCD  
 3934 ABED  
 3935 A@CD

## Type 60-I



**BUILDING NUMBERS**  
 AREA K-1 3917, 3924, 3934, 3941.  
 SEE SITE PLAN SHEET ( ) LOCATION  
 AREA V 1301, 1310, 1323, 1343, 1347, 1350  
 SEE SITE PLAN SHEET ( ) LOCATION  
 AREA T 4252  
 SEE SITE PLAN SHEET ( ) LOCATION

CANOPY (ABOVE)



| REVISIONS                               |         |
|---|---------|
| FAMILY HOUSING                          |         |
| BLOCETARY DATA FOR AIR CONDITIONING     |         |
| CAPEHART HOUSING SCHOFIELD 1963 AREA    |         |
| FIRST AND SECOND FLOOR PLANS TYPE       |         |
| SCHOFIELD BARRACKS                      | DATE, N |
| U. S. ARMY ENGINEER DIVISION, PACIFIC O |         |
| CORPS OF ENGINEERS                      |         |
| HONOLULU, HAWAII                        |         |

UNIT TYPE 60-II

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3922

Building Type: 60-II

Apartment: C

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 6

Average No. of Showers/Day: 6

Average No. of Laundry Loads/Week: 14

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

same as 57-III

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

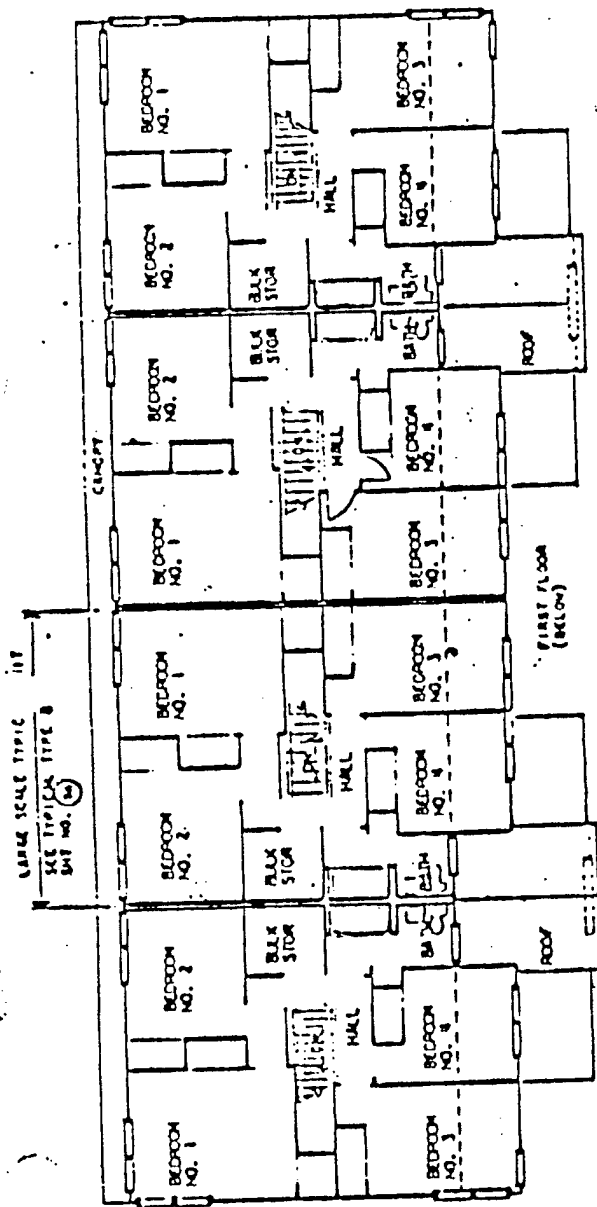
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

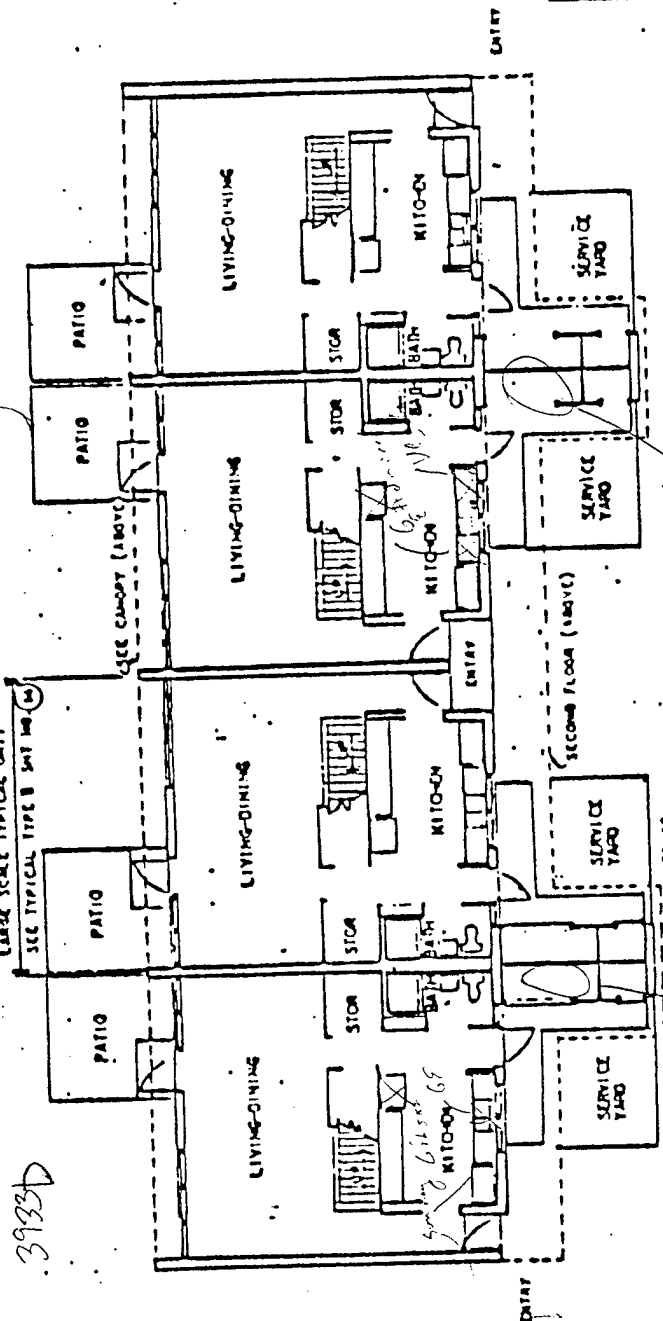
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| kit sk  | 12/125 | 124         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

# Type 60-II

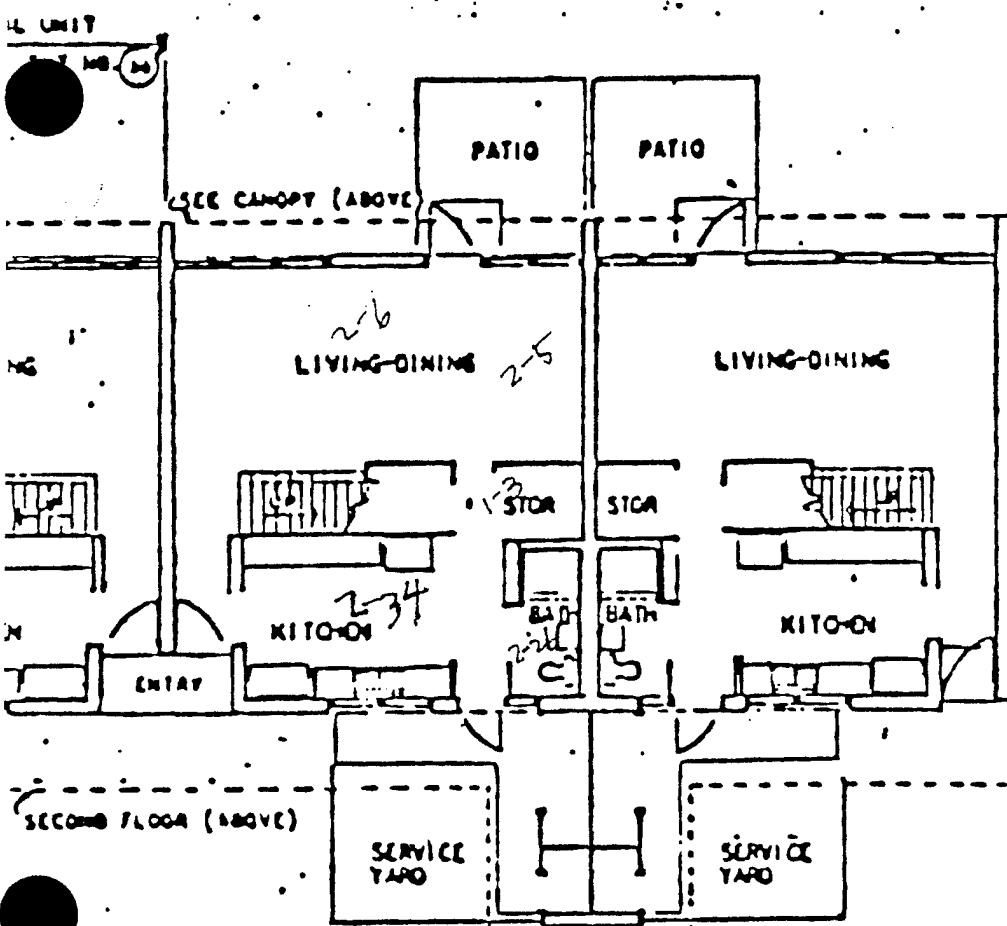
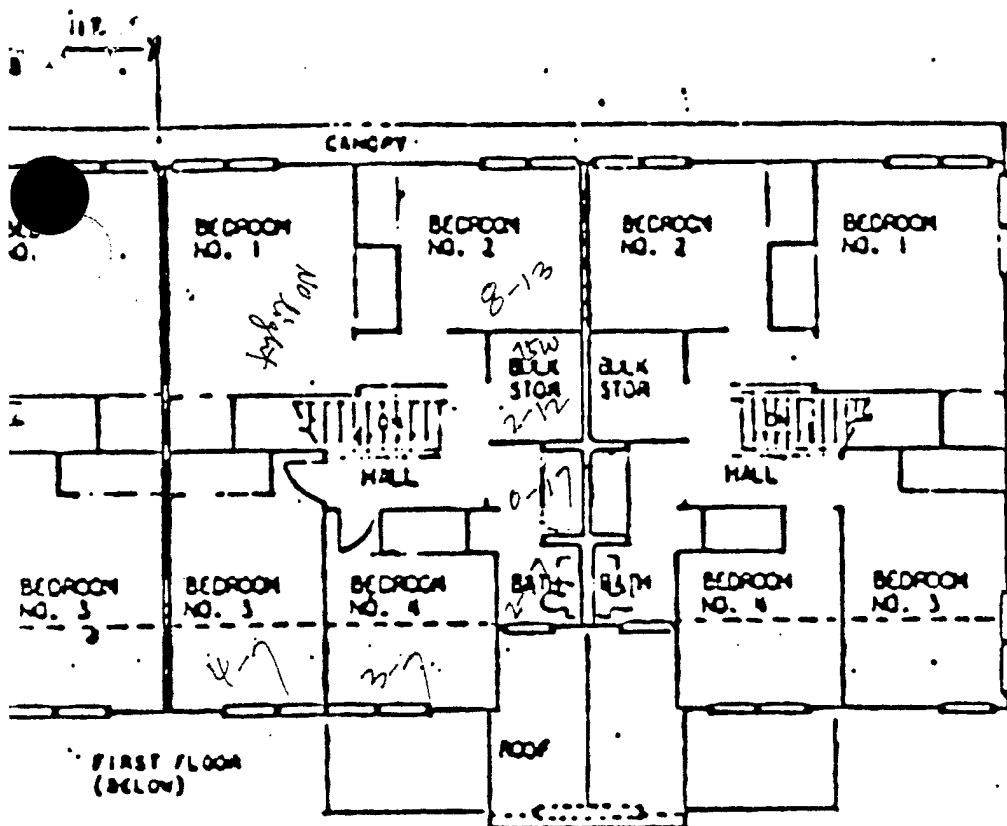
BUILDING NUMBERS  
AREA A-1 3922, 3933, 3936, 3939  
SEE SITE PLAN SHEET 67 FOR LOCATION  
AREA T 4210, 4230  
SEE SITE PLAN SHEET 67 FOR LOCATION  
AREA V 1302, 1303, 1304, 1313  
1318, 1321, 1331, 1341  
1356  
SEE SITE PLAN SHEET 67 FOR LOCATION

| REVISIONS |   |
|-----------|---|
| 1         | FAMILY HOUSING<br>BUDGETARY DATA FOR AIR CONDITIONING PROJECTS<br>CURRENT HOUSING SCHEDULE 1963 LISTS E-1, E-2<br>FIRST AND SECOND FLOOR PLANS TYPE I |
| 2         | SCHEDULE CHANGES<br>DRAFT, HAWAII   |
| 3         | U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN<br>CORPS OF ENGINEERS<br>HONOLULU, HAWAII   |
| 4         | 75 1 23 1 67  |
| 5         | OUT   |

16'  
8' 0" 8' 0" 16'  
Scale

Same as HP broken

SNV



3922 ABCD  
 3933 ABCD  
 3936 ABCD  
 3939 ABCD

Type 60-II

#### BUILDING NUMBERS

AREA K-1 3922, 3933,  
 SEE SITE PLAN 5  
 AREA T 4240, 4250  
 SEE SITE PLAN 5  
 AREA V 1302, 1303,  
 1318, 1321,  
 1356  
 SEE SITE PLAN 5

| REVISIONS                     |
|-------------------------------|
| FAMILY HOUSING                |
| BUDGETARY DATA FOR AIR CONDIT |
| CAPEHART HOUSING SCHOFIELD    |
| FIRST AND SECOND FLOOR PL     |
| SCHOFIELD BARRACKS            |
| U. S. ARMY ENGINEER DIVISION  |
| CORPS OF ENGINE               |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3922

Building Type: 600-II

Apartment: AD

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8

No. of Occupants: 5

Average No. of Showers/Day: 10

Average No. of Laundry Loads/Week: 14

Average No. of Times Dishwasher Used/Day: not used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as  
57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

*Same as 57-III*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

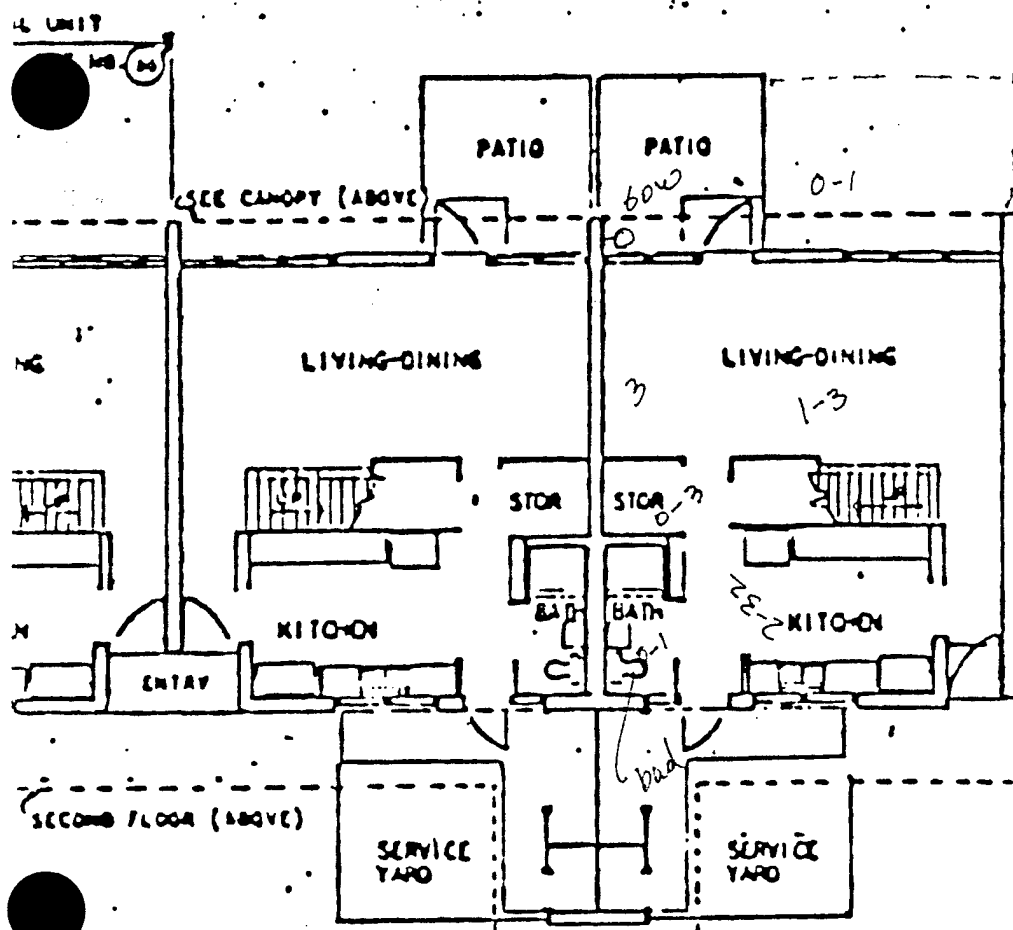
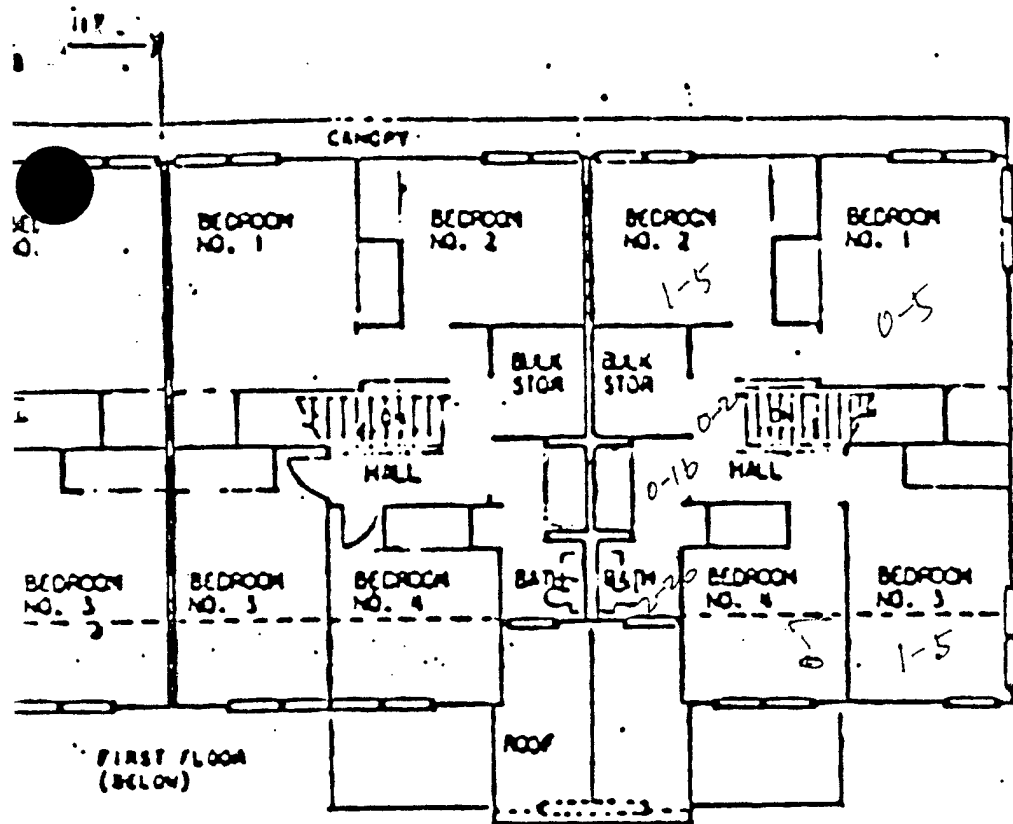
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow     | Water Temp. | Remarks |
|---------|----------|-------------|---------|
| KIT SK  | 2.8/10.5 | 110         |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |
|         |          |             |         |





3922 ABCD  
 3933 ABCD  
 3936 ABCD  
 3939 ABCD

## Type 60-II

### BUILDING NUMBERS

AREA X-1 3922, 3933,  
 SEE SITE PLAN 9  
 AREA T 4240, 4250  
 SEE SITE PLAN 9  
 AREA V 1302, 1303,  
 1318, 1321,  
 1356  
 SEE SITE PLAN 9

| REVISIONS                     |
|-------------------------------|
| FAMILY HOUSING                |
| BUDGETARY DATA FOR AIR CONDIT |
| CAPEHART HOUSING SOMERFIELD   |
| FIRST AND SECOND FLOOR PL     |
| SOMERFIELD BARRACKS           |
| U. S. ARMY ENGINEER DIVISION  |
| CORPS OF ENGINE               |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3933

Building Type: 60-II

Apartment: B

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 3

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 20

Average No. of Times Dishwasher Used/Day: not used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

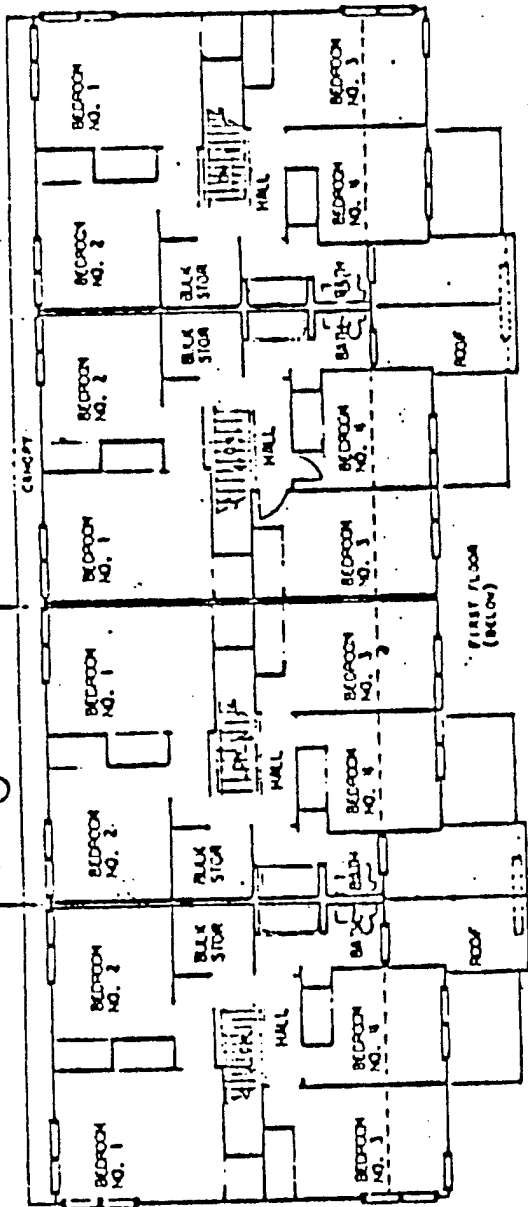
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture      | Flow   | Water Temp. | Remarks |
|--------------|--------|-------------|---------|
| KIT SK       | 12/105 | 116         |         |
| (UP)<br>SHUR | 22/105 | 120         |         |
|              |        |             |         |
|              |        |             |         |
|              |        |             |         |
|              |        |             |         |
|              |        |             |         |
|              |        |             |         |
|              |        |             |         |

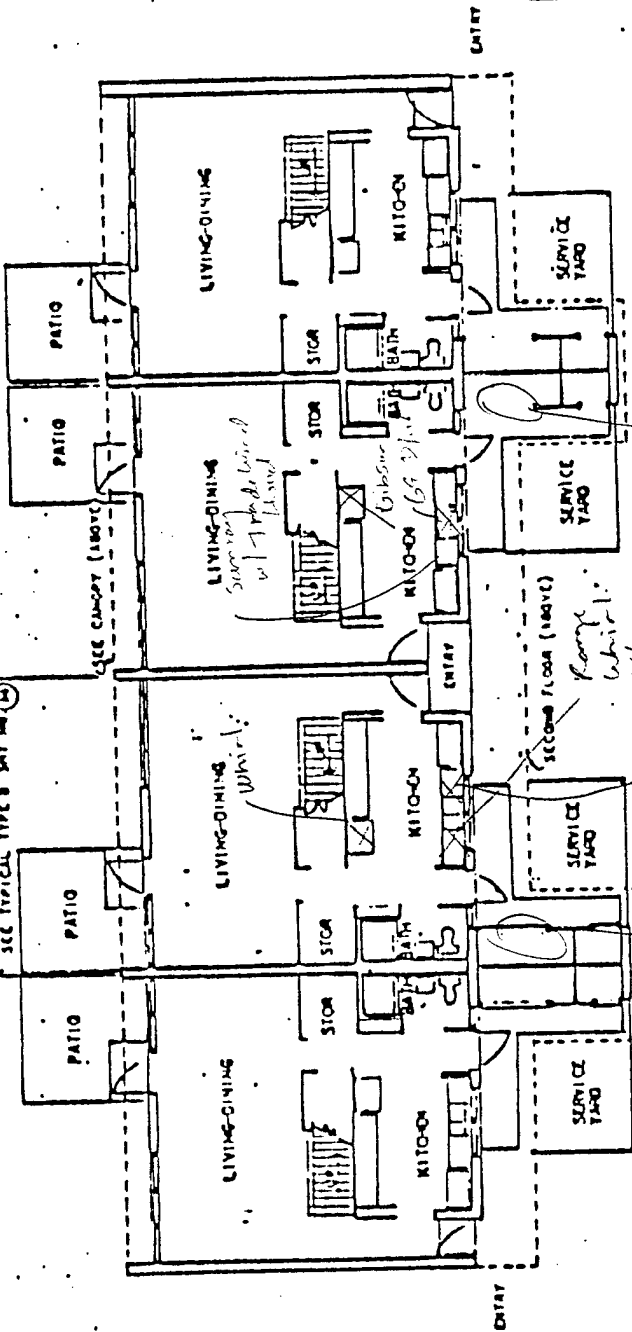
LARGE SCALE TYPIC UNIT  
SEE TYPICAL TYPE B  
UNIT NO. 1



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3933 C

LARGE SCALE TYPICAL UNIT  
SEE TYPICAL TYPE B UNIT NO. 1



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

0' 0" 8' 16'

Type 60-II

BUILDING NUMBERS

AREA K-1 3932, 3933, 3934, 3939

SEE SITE PLAN SHEET 60 FOR LOCATION

AREA T 4250, 4251

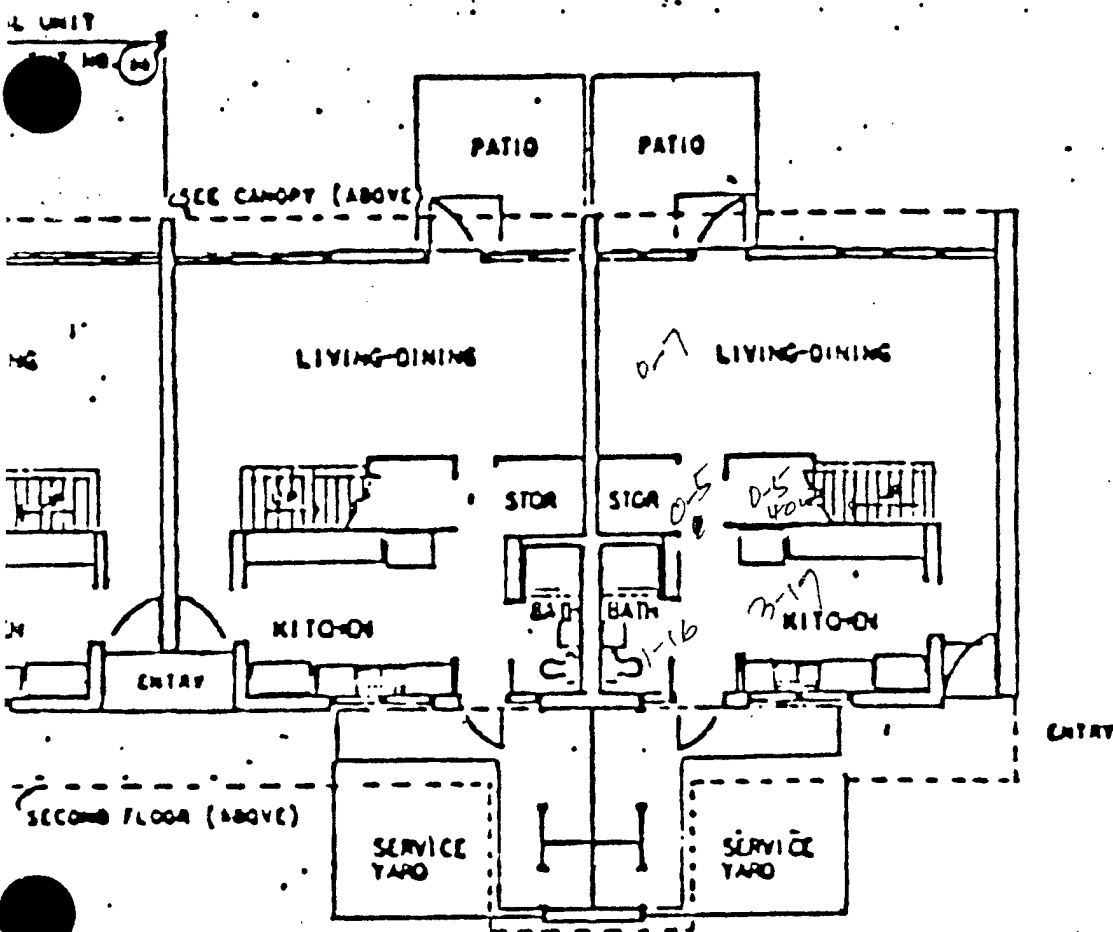
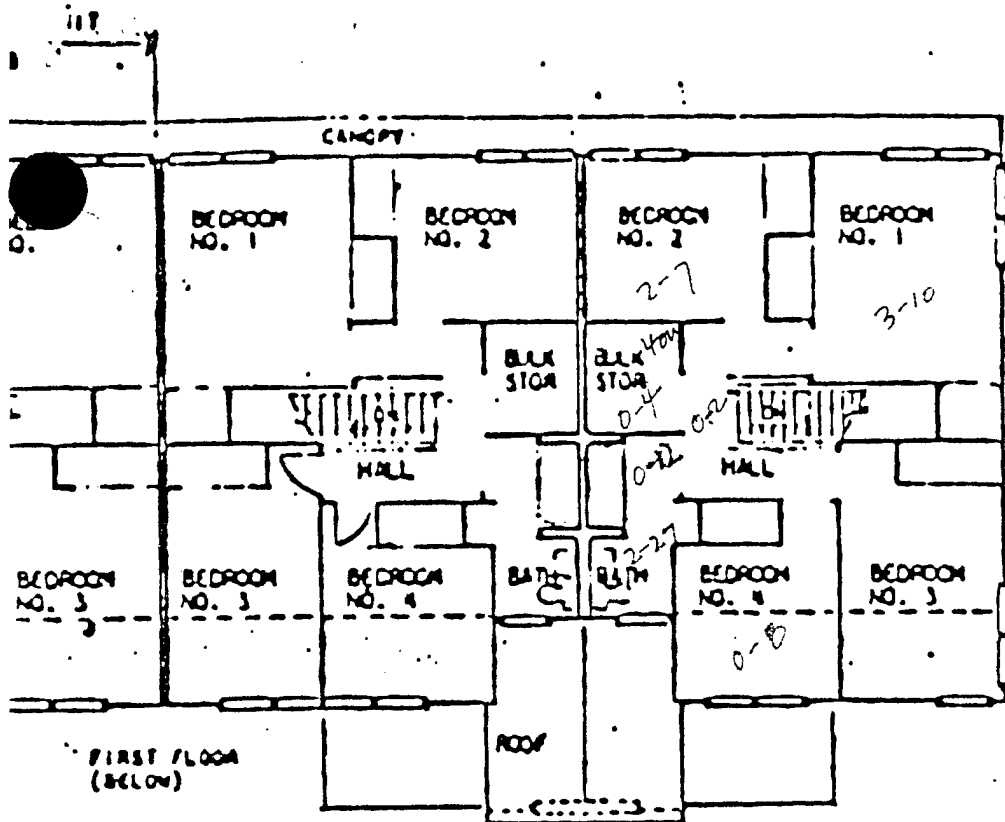
SEE SITE PLAN SHEET 60 FOR LOCATION

AREA V 1302, 1303, 1304, 1313, 1318, 1321, 1331, 1341, 1354

SEE SITE PLAN SHEET 60 FOR LOCATION

| REVISIONS                                   |  |
|---|--|
| 1   | FAMILY HOUSING                               |
| 2   | BUDGETARY DATA FOR AIR CONDITIONING PROJECTS |
| 3   | CURRENT HOUSING SOFTFIELD 1960 LOTS 1-1, 1-V |
| 4   | FIRST AND SECOND FLOOR PLANS TYPE I          |
| SOFTFIELD SERVICES                          |  |
| U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN |  |
| CORPS OF ENGINEERS                          |  |
| HONOLULU, HAWAII                            |  |
| DATE  | SHEET  |
| 25 1 23 67                                  | 22   |





3922 ABCD  
 3933 ABCD  
 3936 ABCD  
 3939 ABCD

Type 60-II

#### BUILDING NUMBERS

AREA X-1 3922, 3933,  
 SEE SITE PLAN 9  
 AREA Y 4240, 4250  
 SEE SITE PLAN 9  
 AREA V 1302, 1303,  
 1318, 1321,  
 1356  
 SEE SITE PLAN 9

| REVISIONS                     |
|-------------------------------|
| FAMILY HOUSING                |
| BUDGETARY DATA FOR AIR CONDIT |
| CAPEHART HOUSING SCHOFIELD    |
| FIRST AND SECOND FLOOR PL     |
| SCHOFIELD BARRACKS            |
| U. S. ARMY ENGINEER DIVISION  |
| CORPS OF ENGINE               |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3933

Building Type: 60-II

Apartment: C

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 5

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 15

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

Reflective Coating

3.0 HOT WATER SYSTEM

*same as 57-III*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building

       Several Small Systems per Building

       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

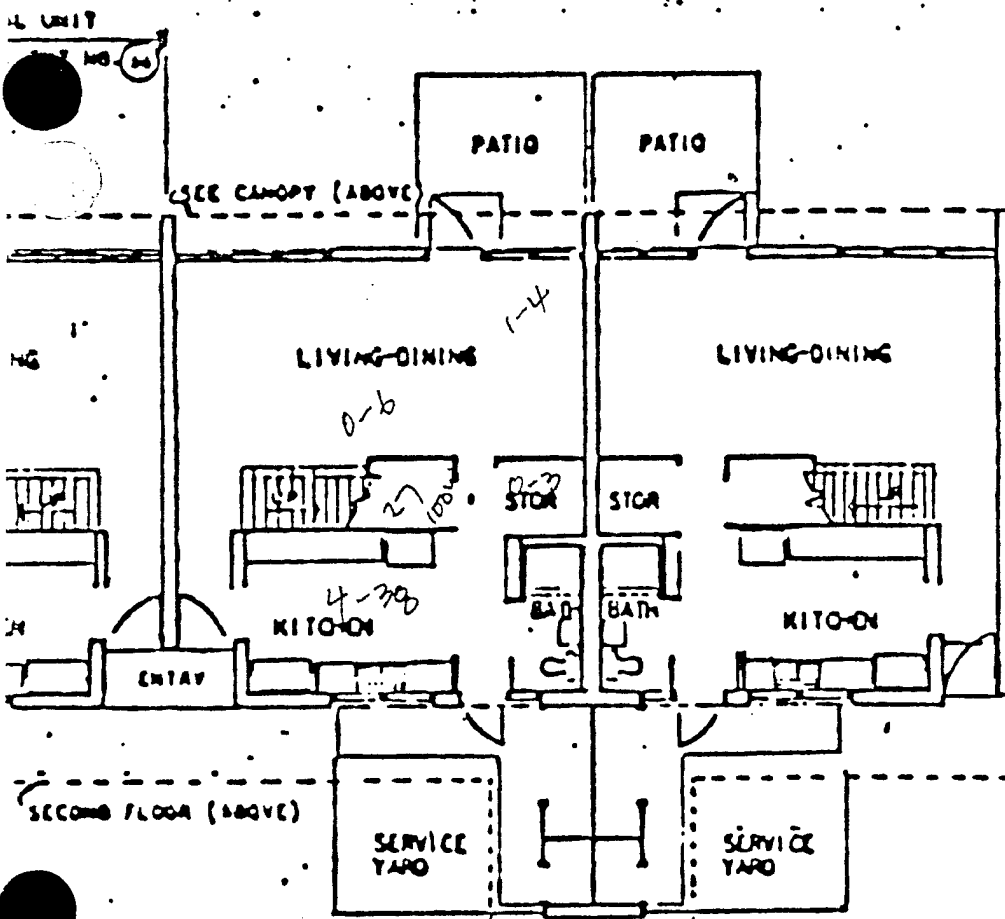
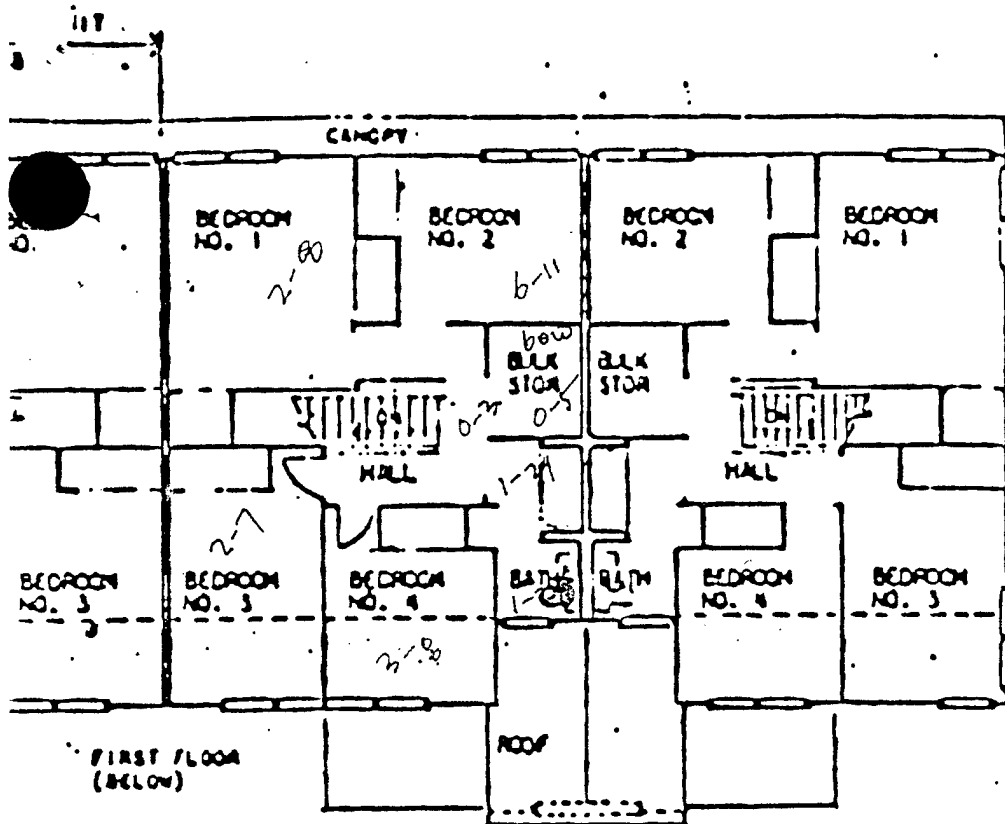
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture          | Flow     | Water Temp. | Remarks |
|------------------|----------|-------------|---------|
| Kit SK           | 1.5ℓ/10s | 120         |         |
| UPSTAIRS<br>SHWR | 3.5ℓ/10s | 120         |         |
|                  |          |             |         |
|                  |          |             |         |
|                  |          |             |         |
|                  |          |             |         |
|                  |          |             |         |
|                  |          |             |         |
|                  |          |             |         |





3922 ABCD  
 3933 ABCD  
 3936 ABCD  
 3939 ABCD

## Type 60-II

BUILDING NUMBERS  
 AREA X-1 3922, 3933,  
 SEE SITE PLAN 9  
 AREA Y 4240, 4250  
 SEE SITE PLAN 9  
 AREA V 1302, 1303,  
 1318, 1321,  
 1356  
 SEE SITE PLAN 9

| REVISIONS   |
|---|
| FAMILY HOUSING<br>BUDGETARY DATA FOR AIR CONDIT         |
| CAPEHART HOUSING SCHOFIELD<br>FIRST AND SECOND FLOOR PL |
| SCHOFIELD BARRACKS                                      |
| U. S. ARMY ENGINEER DIVISION<br>CORPS OF ENGINE         |



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3933

Building Type: 60-II

Apartment: AD

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 5

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 10

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



2.0 ARCHITECTURAL

same as 57-III

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

*Same as 57-III*

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

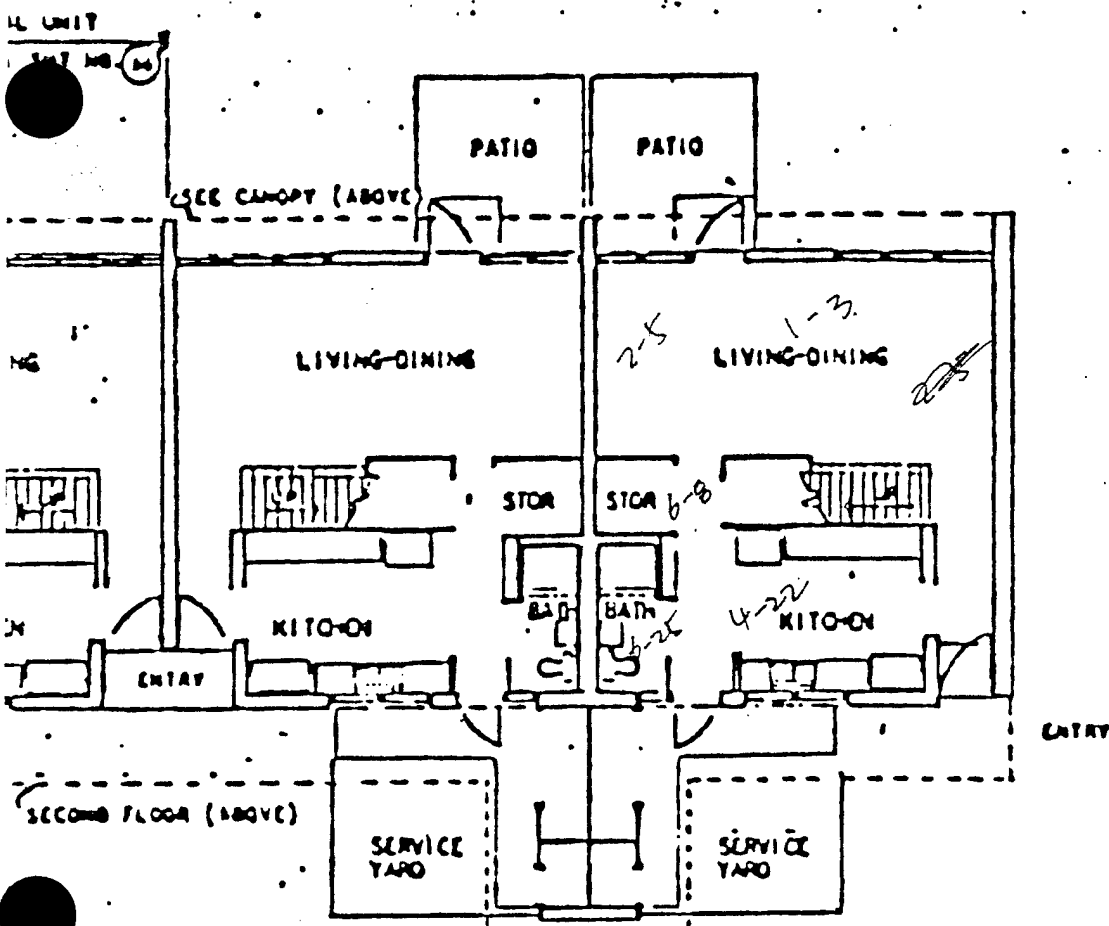
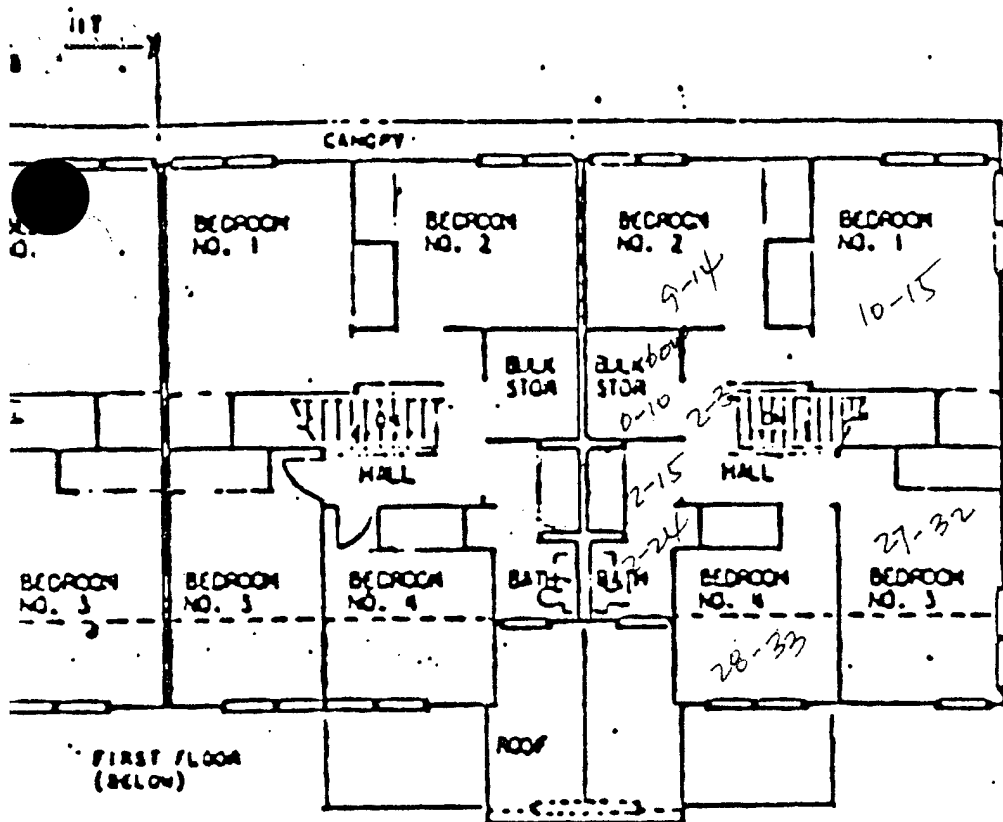
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture                | Flow   | Water Temp. | Remarks |
|------------------------|--------|-------------|---------|
| Kit. SK                | 12/105 | 122 F       |         |
| <sup>7N</sup><br>CShwr | 12/105 | 120 F       |         |
|                        |        |             |         |
|                        |        |             |         |
|                        |        |             |         |
|                        |        |             |         |
|                        |        |             |         |
|                        |        |             |         |





3922 ABCD  
 3933 ABCD  
 3936 ABCD  
 3939 ABCD

Type 60-II

#### BUILDING NUMBERS

AREA K-1 3922, 3933,  
 SEE SITE PLAN S  
 AREA T 4240, 4250  
 SEE SITE PLAN S  
 AREA V 1302, 1303,  
 1318, 1321,  
 1356  
 SEE SITE PLAN S

| REVISIONS                     |
|-------------------------------|
| FAMILY HOUSING                |
| BUDGETARY DATA FOR AIR CONDIT |
| CAPEWART HOUSING SOMERFIELD   |
| FIRST AND SECOND FLOOR PL     |
| SOMERFIELD BARRACKS           |
| U. S. ARMY ENGINEER DIVISION  |
| CORPS OF ENGINE               |

0 8' 16'

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3739

Building Type: 60-II

Apartment: C

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: 8

No. of Occupants: 5

Average No. of Showers/Day: 10

Average No. of Laundry Loads/Week: 14

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No

Tinted

Reflective Coating

3.0 HOT WATER SYSTEM

*came at 57-III*

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building

       Several Small Systems per Building

       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

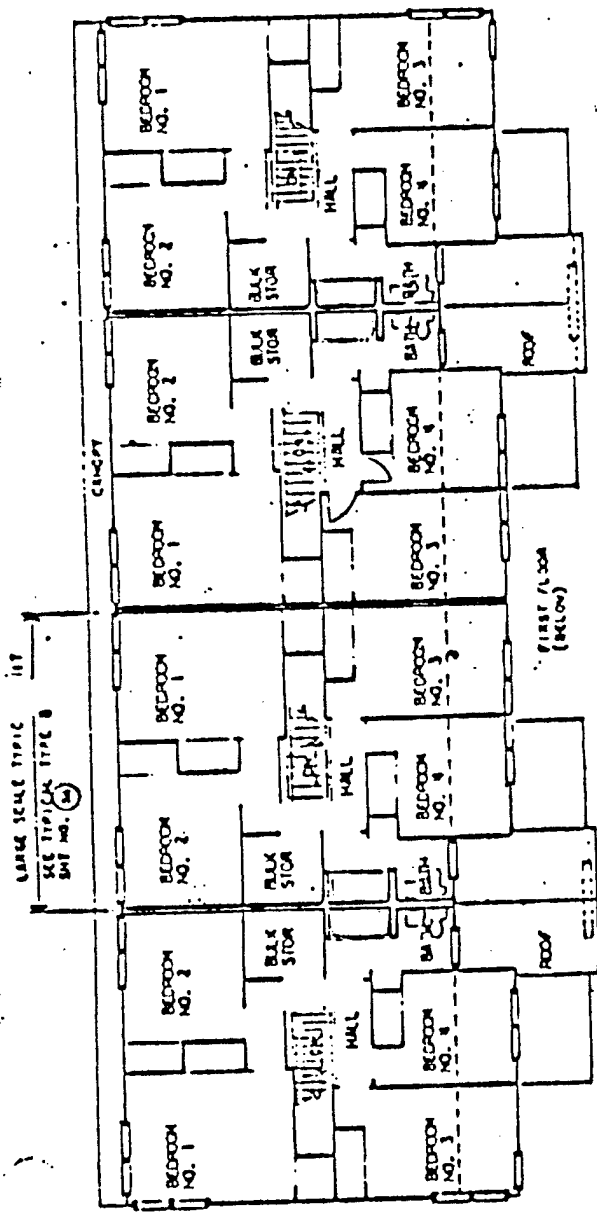
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

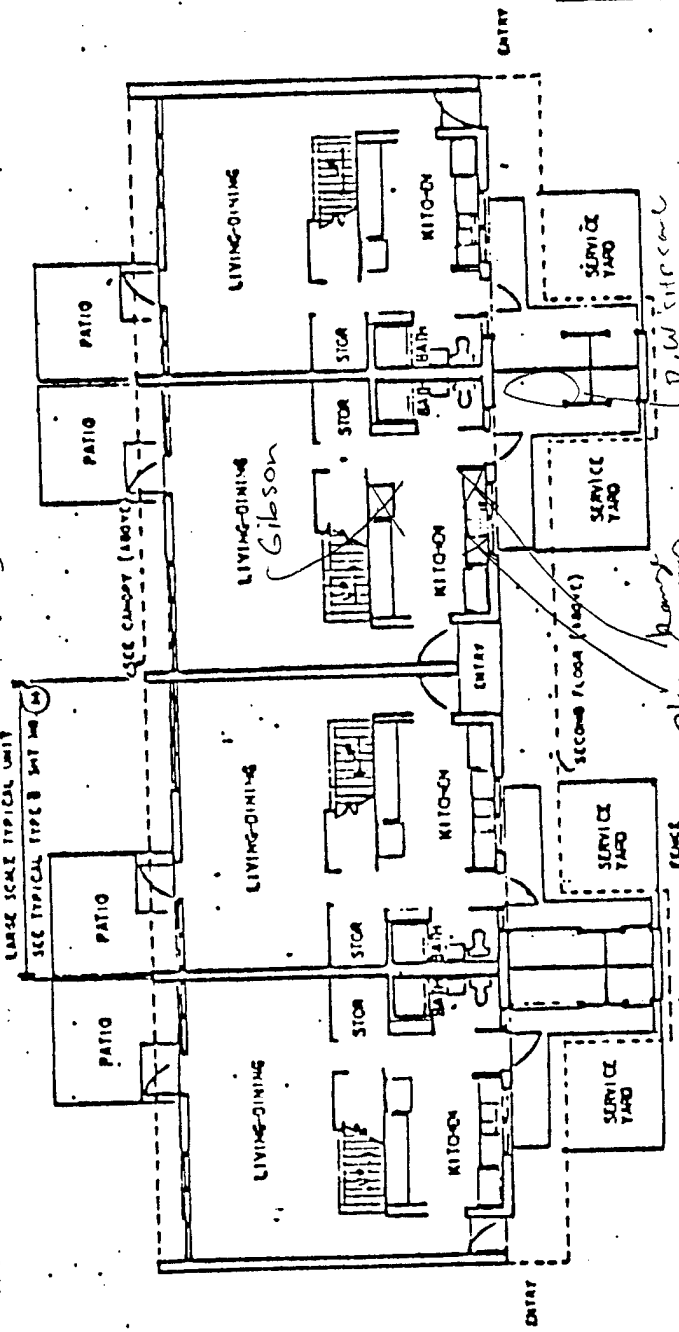
### 3.4 HOT WATER FIXTURES

| Fixture     | Flow   | Water Temp. | Remarks |
|-------------|--------|-------------|---------|
| Kit. Sk     | 22/105 | 118         |         |
| Shwr (down) | 12/105 | 110         |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |
|             |        |             |         |



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"

3939C



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

# Type 60-II

BUILDING NUMBER  
AREA K-1 3922, 3933, 3936, 3939  
SEE SITE PLAN SHEET 69 FOR LOCATION  
AREA T 4250, 4250  
SEE SITE PLAN SHEET 69 FOR LOCATION  
AREA V 1302, 1303, 1306, 1313  
1318, 1321, 1331, 1341  
1356  
SEE SITE PLAN SHEET 69 FOR LOCATION

| REVISIONS |   |
|-----------|---|
| 1         | FAMILY HOUSING<br>BUDGETARY DATA FOR AIR CONDITIONING PROJECTS<br>CAPEHART HOUSING SOCIETY 1950 LOTS K-1, T, V<br>FIRST AND SECOND FLOOR PLANS TYPE I |
| 2         | SOMEFIELD BARBERS<br>GAMES, MAHALLI   |
| 3         | U. S. ARMY ENGINEER DIVISION, PACIFIC OCEAN<br>CORPS OF ENGINEERS<br>HONOLULU, MAHALLI  |
| 4         | 25: 23: 07  |
| 5         | 22  |



UNIT TYPE 60-III

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3918  
Building Type: 60-111  
Apartment: A  
No. Bedrooms: 3  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: from 5 pm  
No. of Occupants: 4  
Average No. of Showers/Day: 5  
Average No. of Laundry Loads/Week: 8  
Average No. of Times Dishwasher Used/Day: 1  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as  
57-III

### Reflective Coating

same as 87-111

a. Is System Supported from (check one):

Several Small Systems per Building

           Individual EWH/Unit

OF

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Insulation Thickness: \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided?
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

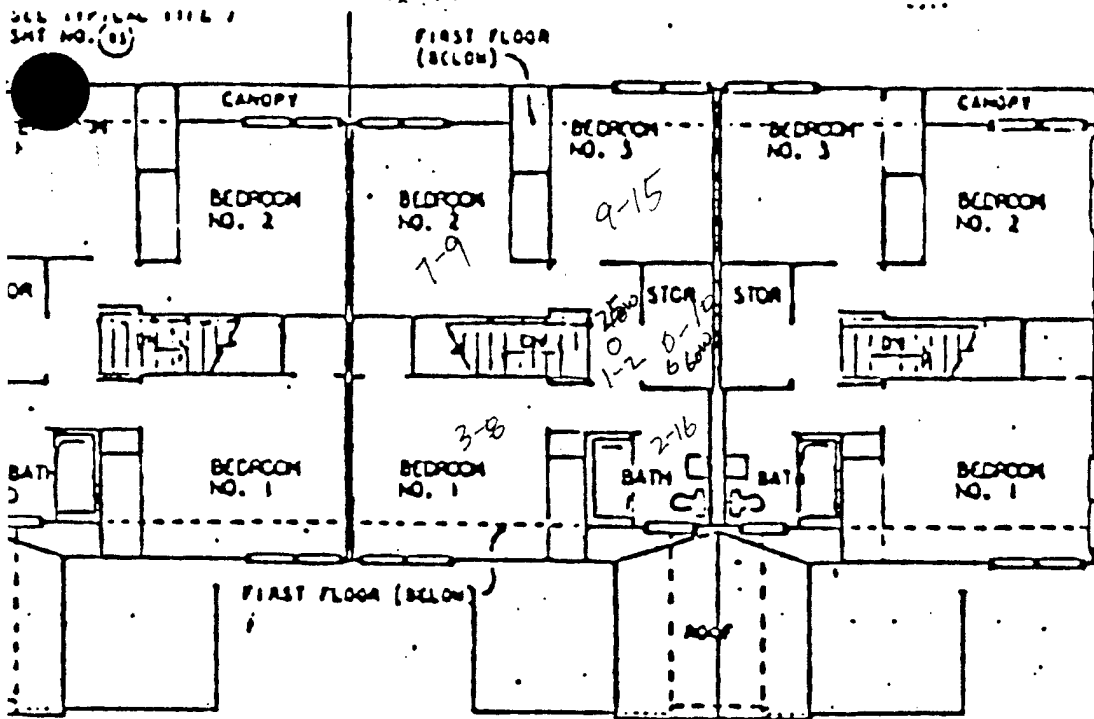
### 3.4 HOT WATER FIXTURES

| Fixture  | Flow   | Water Temp. | Remarks    |
|----------|--------|-------------|------------|
| Kit SK   | 22/105 | 102         | doing wash |
| shur (4) | 12/105 | 102         |            |
|          |        |             |            |
|          |        |             |            |
|          |        |             |            |
|          |        |             |            |
|          |        |             |            |
|          |        |             |            |



|  |      |      |  |  |    |    |    |    |
|--|------|------|--|--|----|----|----|----|
| 100  | CODE | 1474 |  |  | 12 | 07 | 07 | 23 |
| U. S. ARMY ENGINEER, DIVISION, PACIFIC OCEAN<br>COMPS OF ENGINEERS<br>117TH COL, HAWAII<br>30-07110 BARBERS<br>TYPE 1<br>CAPABILITY HOLDING 1500 LBS<br>FIRST AND SECOND FLOOR PLANS<br>FAMILY HOUSING<br>BLOCCARY DATA FOR AIR CLIMATIZING DEVICES<br>REVISIONS |      |      |  |  |    |    |    |    |

SEE TYPICAL TYPE 7  
SMT NO. (81)



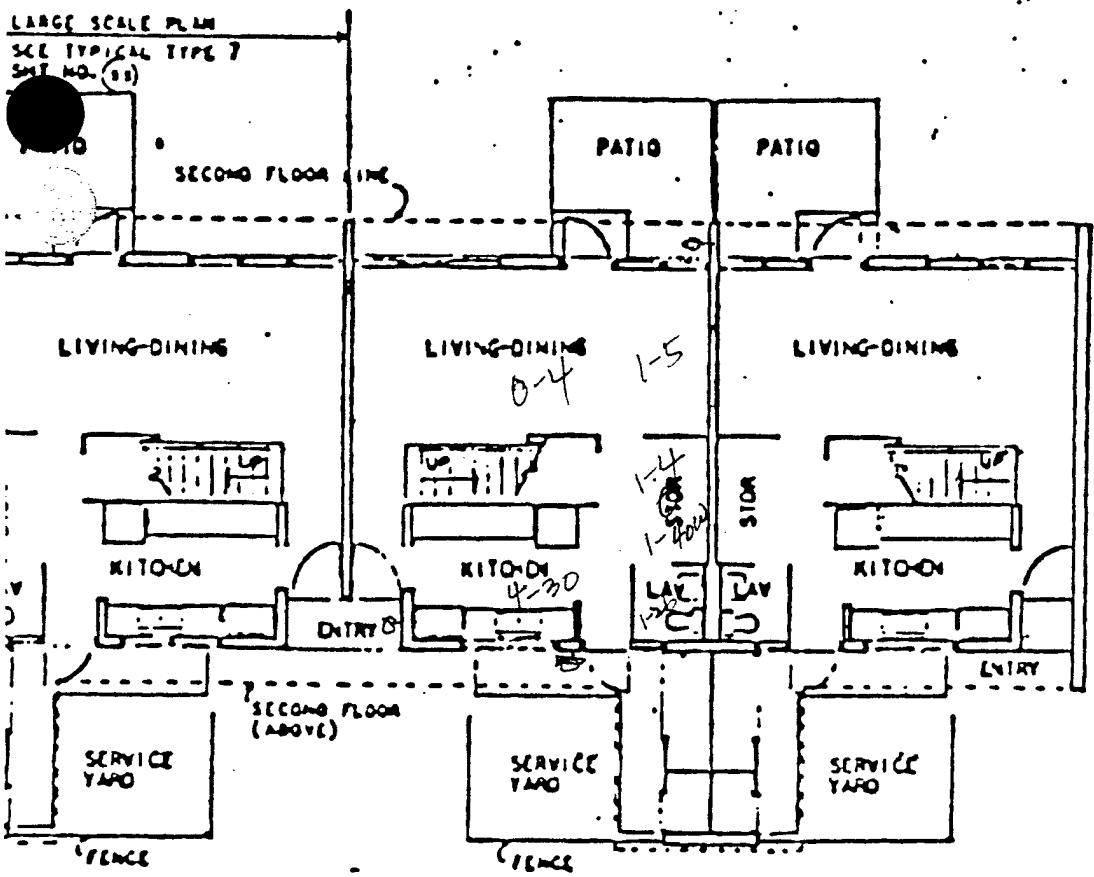
Type 60-I

BUILDING NUMBERS

|          |      |      |
|----------|------|------|
| AREA K-1 | 3918 | 3919 |
|          | 3920 | 3921 |
|          | 3922 | 3923 |
|          | 3924 | 3925 |
| AREA T   | 4234 | 4235 |
|          | 4236 | 4237 |
| AREA V   | 1308 | 1309 |
|          | 1310 | 1311 |
|          | 1312 | 1313 |
|          | 1314 | 1315 |
|          | 1316 | 1317 |
|          | 1318 | 1319 |
|          | 1320 | 1321 |
|          | 1322 | 1323 |
|          | 1324 | 1325 |
|          | 1326 | 1327 |
|          | 1328 | 1329 |
|          | 1330 | 1331 |
|          | 1332 | 1333 |
|          | 1334 | 1335 |
|          | 1336 | 1337 |
|          | 1338 | 1339 |
|          | 1340 | 1341 |
|          | 1342 | 1343 |
|          | 1344 | 1345 |
|          | 1346 | 1347 |
|          | 1348 | 1349 |
|          | 1350 | 1351 |
|          | 1352 | 1353 |
|          | 1354 | 1355 |
|          | 1356 | 1357 |
|          | 1358 | 1359 |
|          | 1360 | 1361 |
|          | 1362 | 1363 |
|          | 1364 | 1365 |
|          | 1366 | 1367 |
|          | 1368 | 1369 |
|          | 1370 | 1371 |
|          | 1372 | 1373 |

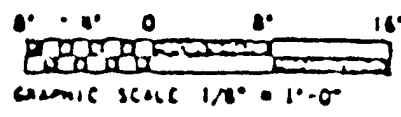
SEE SITE PLAN FOR LOCATION

LARGE SCALE PLAN  
SEE TYPICAL TYPE 7  
SMT NO. (81)



TYPE 60-II

- 3918 ABCD
- 3919 ABCD
- 3920 ABCD
- 3921 ABCD



|                        |    |
|------------------------|----|
| REVIS                  |    |
| FAMILY H               |    |
| BUDGETARY DATA FOR AIR |    |
| DISPATCH HOUSING SOC   |    |
| FIRST AND SECOND FLO   |    |
| SONOFIELD BARRACKS     |    |
| U. S. ARMY ENGINEER, O |    |
| CORPS OF I             |    |
| MODEL                  |    |
| LOC CODE 8799          | 75 |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3919

Building Type: 60-111

Apartment: A

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: 2

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as  
57-III

### Reflective Coating

same as 57-117

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

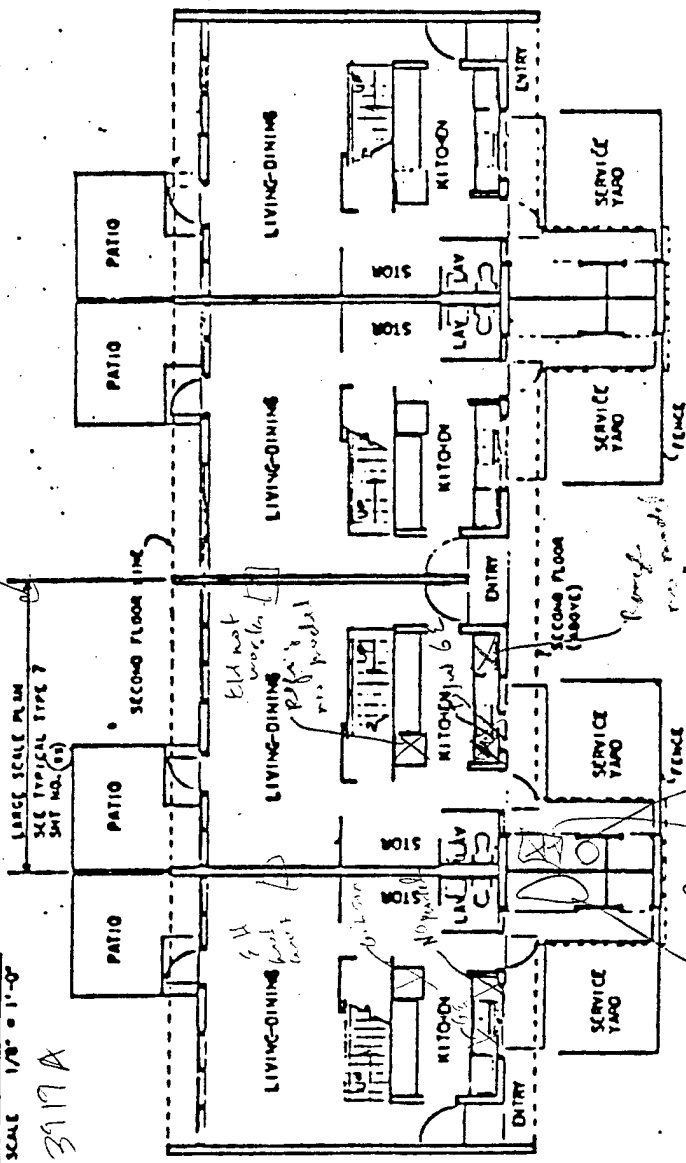
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture | Flow    | Water Temp. | Remarks    |
|---------|---------|-------------|------------|
| Kit SK  | 2 1/10s | 104 F       | Doing Wash |
|         |         |             |            |
|         |         |             |            |
|         |         |             |            |
|         |         |             |            |
|         |         |             |            |
|         |         |             |            |
|         |         |             |            |
|         |         |             |            |
|         |         |             |            |

3919B

SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

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 2465

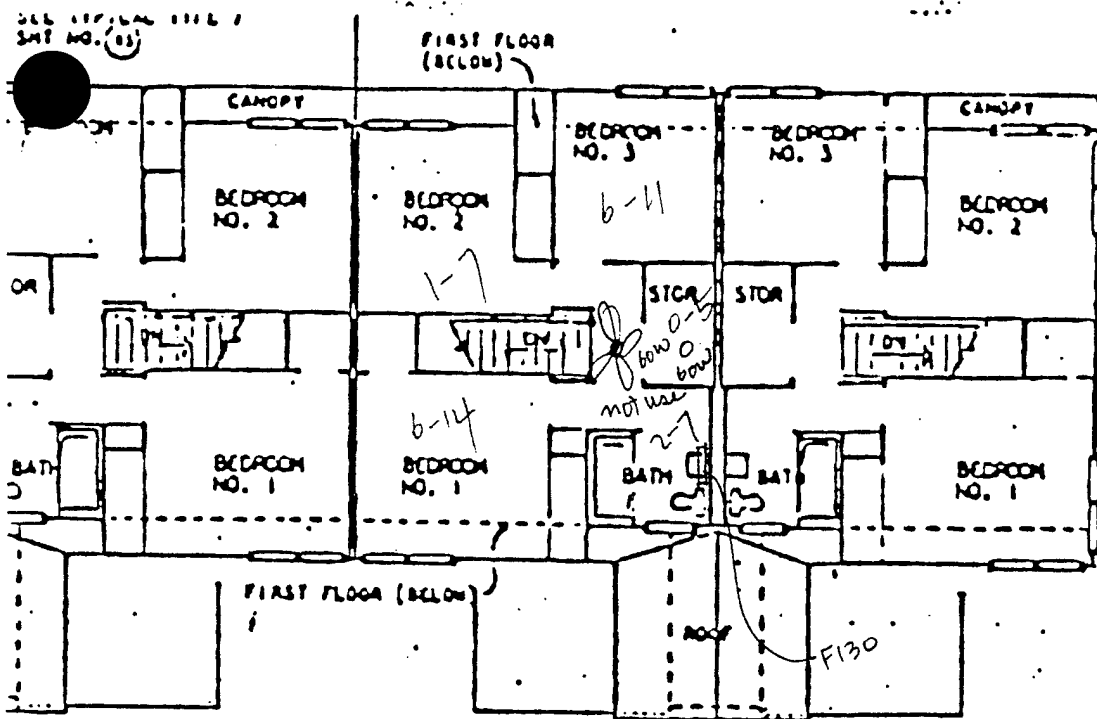
[illegible]

Type 60-III

| BUILDING NUMBERS |  |
|------------------|--|
| AREA K-1         | 3918, 3923, 3926, 3930, 3940, 3942, 3943, 3944, 3945, 3946, 3947, 3948, 3949, 3950, 3951, 3952, 3953, 3954, 3955, 3956, 3957, 3958, 3959, 3960, 3961, 3962, 3963, 3964, 3965, 3966, 3967, 3968, 3969, 3970, 3971, 3972, 3973, 3974, 3975, 3976, 3977, 3978, 3979, 3980, 3981, 3982, 3983, 3984, 3985, 3986, 3987, 3988, 3989, 3990, 3991, 3992, 3993, 3994, 3995, 3996, 3997, 3998, 3999   |
| AREA T           | 4234, 4235, 4236, 4237, 4238, 4239, 4240, 4241, 4242, 4243, 4244, 4245, 4246, 4247, 4248, 4249, 4250, 4251, 4252, 4253, 4254, 4255, 4256, 4257, 4258, 4259, 4260, 4261, 4262, 4263, 4264, 4265, 4266, 4267, 4268, 4269, 4270, 4271, 4272, 4273, 4274, 4275, 4276, 4277, 4278, 4279, 4280, 4281, 4282, 4283, 4284, 4285, 4286, 4287, 4288, 4289, 4290, 4291, 4292, 4293, 4294, 4295, 4296, 4297, 4298, 4299   |
| AREA V           | 4301, 4311, 4312, 4313, 4314, 4315, 4316, 4317, 4318, 4319, 4320, 4321, 4322, 4323, 4324, 4325, 4326, 4327, 4328, 4329, 4330, 4331, 4332, 4333, 4334, 4335, 4336, 4337, 4338, 4339, 4340, 4341, 4342, 4343, 4344, 4345, 4346, 4347, 4348, 4349, 4350, 4351, 4352, 4353, 4354, 4355, 4356, 4357, 4358, 4359, 4360, 4361, 4362, 4363, 4364, 4365, 4366, 4367, 4368, 4369, 4370, 4371, 4372, 4373, 4374, 4375, 4376, 4377, 4378, 4379, 4380, 4381, 4382, 4383, 4384, 4385, 4386, 4387, 4388, 4389, 4390, 4391, 4392, 4393, 4394, 4395, 4396, 4397, 4398, 4399 |

COLLEGE LOCATION  
SUNSHINE STATE

[illegible]

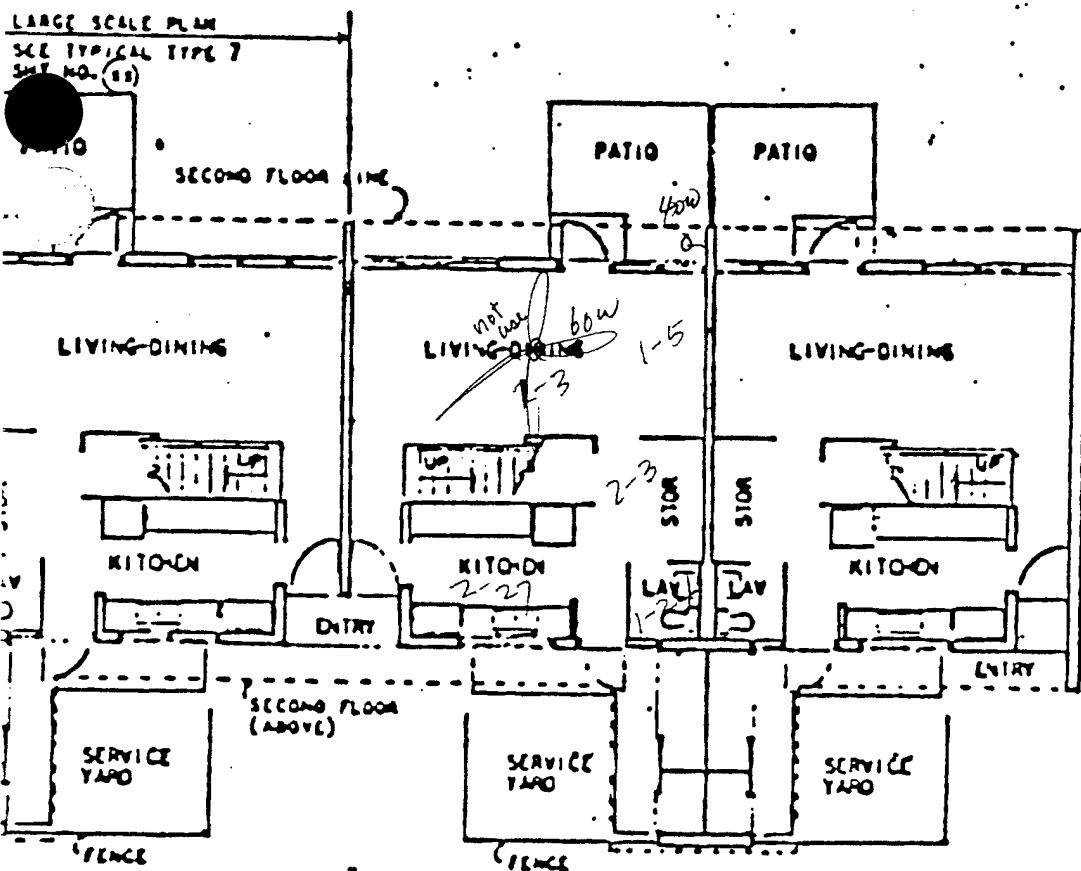


Type 60-I

BUILDING NUMBERS

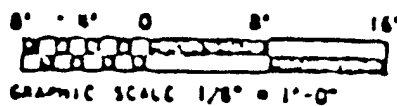
|          |       |     |
|----------|-------|-----|
| AREA K-I | 3918, | 391 |
|          | 3923, | 392 |
|          | 3930, | 393 |
|          | 3940, | 394 |
| AREA T   | 4254, | 425 |
|          | 4246, | 424 |
| AREA V   | 1304, | 130 |
|          | 1311, | 131 |
|          | 1317, | 131 |
|          | 1323, | 132 |
|          | 1333, | 133 |
|          | 1344, | 134 |
|          | 1351, | 135 |
|          | 1362, | 136 |
|          | 1372  |     |

SEE SITE PLAN  
FOR LOCATION



TYPE 60-II

3918 ABCD  
3919 ABCD  
3920 ABCD  
3921 ABCD



|                          |    |
|--------------------------|----|
| REVIS                    |    |
| FAMILY M                 |    |
| BUDGETARY DATA FOR AIR C |    |
| CAPMART HOLDING SOC      |    |
| FIRST AND SECOND FLO     |    |
| SOONFIELD BARRACKS       |    |
| U. S. ARMY ENGINEER, OI  |    |
| CORPS OF E               |    |
| NOVEMBER                 |    |
| LOC. CODE 8279           | 25 |



Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3919

Building Type: Co - 111

Apartment: B

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: all

No. of Occupants: 4

Average No. of Showers/Day: 5

Average No. of Laundry Loads/Week: 9

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

same as 60-II

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted  
Reflective Coating

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*same as 60-II*

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit

b. Domestic Hot Water Temperatures provided:        °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition:         
Insulation Thickness:       

e. Is Hot Water Circulated?       

- 1) Condition of circulator
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location
- b. Areas Served
- c. Manufacturer and Model
- d. Energy (Oil, Gas, Electric, Coal, Etc.)
- e. Type Heaters & Quantities:
  - 1) Storage
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

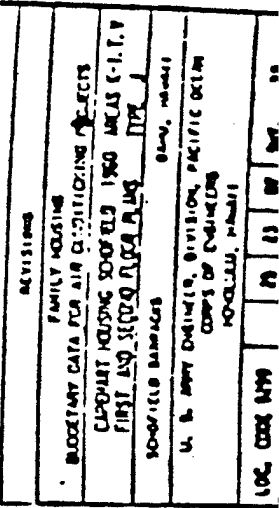
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

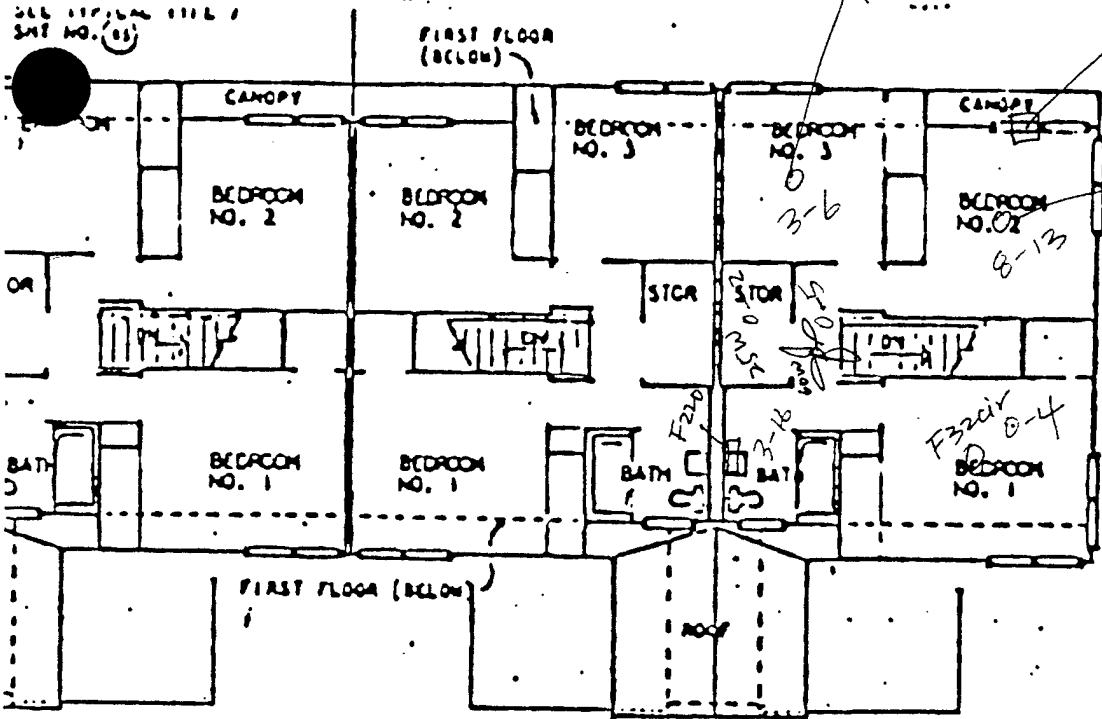
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture   | Flow      | Water Temp. | Remarks             |
|-----------|-----------|-------------|---------------------|
| Kit Sk    | 1.5 l/10s | 122F        |                     |
| Shwr (cp) | 1 l/10s   | 120F        | Shower Massage Head |
|           |           |             |                     |
|           |           |             |                     |
|           |           |             |                     |
|           |           |             |                     |
|           |           |             |                     |
|           |           |             |                     |



SEE TYPICAL TYPE 7  
SHT NO. (83)



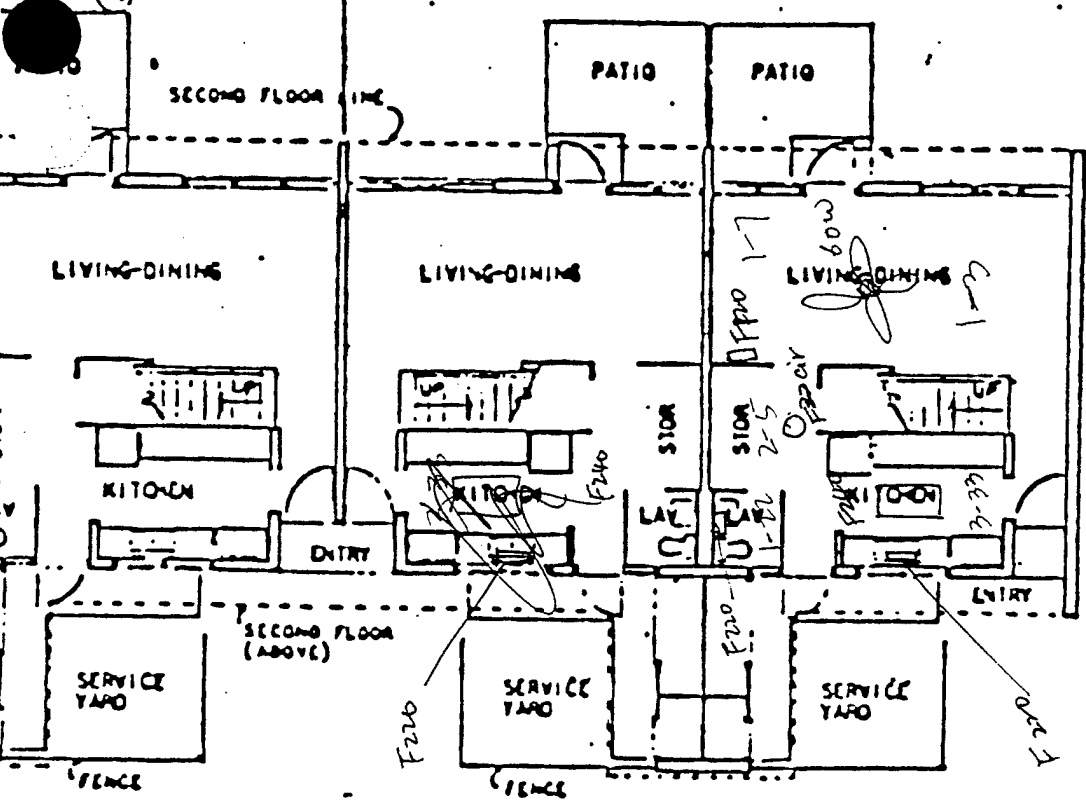
Type 60-I

BUILDING NUMBERS

|          |       |      |
|----------|-------|------|
| AREA K-1 | 3918, | 3919 |
|          | 3923, | 3924 |
|          | 3930, | 3931 |
|          | 3940, | 3942 |
| AREA T   | 4234, | 4236 |
|          | 4246, | 4248 |
| AREA V   | 1304, | 1305 |
|          | 1311, | 1312 |
|          | 1317, | 1319 |
|          | 1325, | 1326 |
|          | 1333, | 1334 |
|          | 1344, | 1345 |
|          | 1351, | 1352 |
|          | 1362, | 1364 |
|          | 1372  |      |

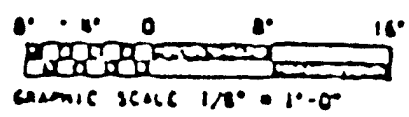
SEE SITE PLAN FOR LOCATION

LARGE SCALE PLAN  
SEE TYPICAL TYPE 7  
SHT NO. (83)



TYPE 60-II

- 3918 ABCD
- 3919 ABCD
- 3920 ABCD
- 3921 ABCD



|                          |    |
|--------------------------|----|
| REVIS                    |    |
| FAMILY M                 |    |
| BLOCKHOUT DATA FOR AIR C |    |
| CAPMART HOUSING SCHO     |    |
| FIRST AND SECOND FLOO    |    |
| SCORFIELD BARRACKS       |    |
| U. S. ARMY ENGINEER, OI  |    |
| CORPS OF E               |    |
| HONOLULU,                |    |
| LOC. CODE 8299           | 25 |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3920

Building Type: 60-111

Apartment: A

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 2

Average No. of Showers/Day: 3

Average No. of Laundry Loads/Week: 7

Average No. of Times Dishwasher Used/Day: Not used

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as  
~~57-151~~  
60-11



same as Co-II

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

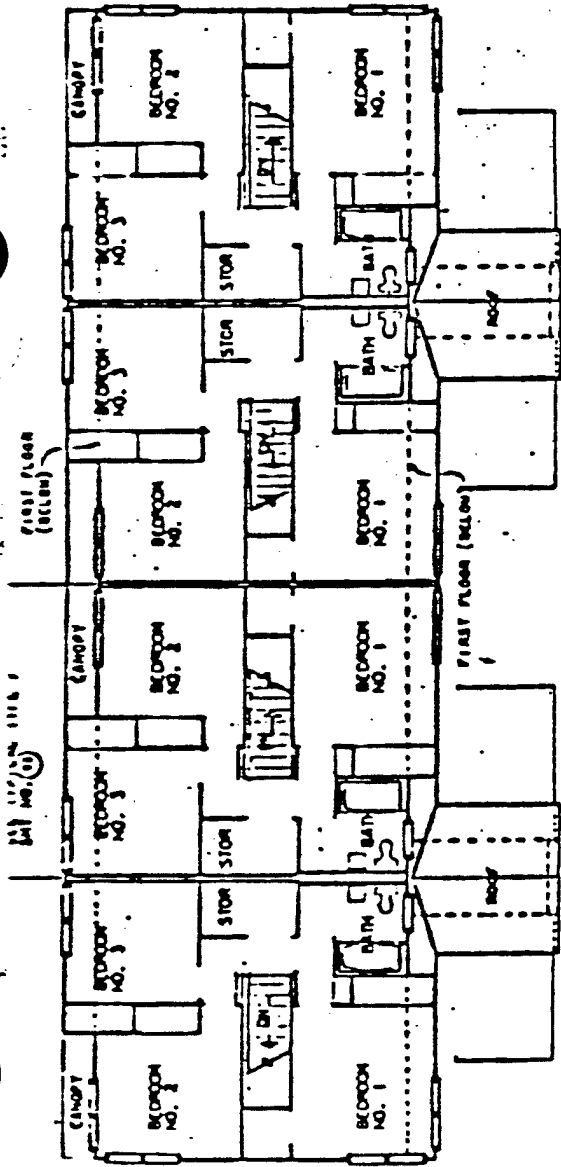
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

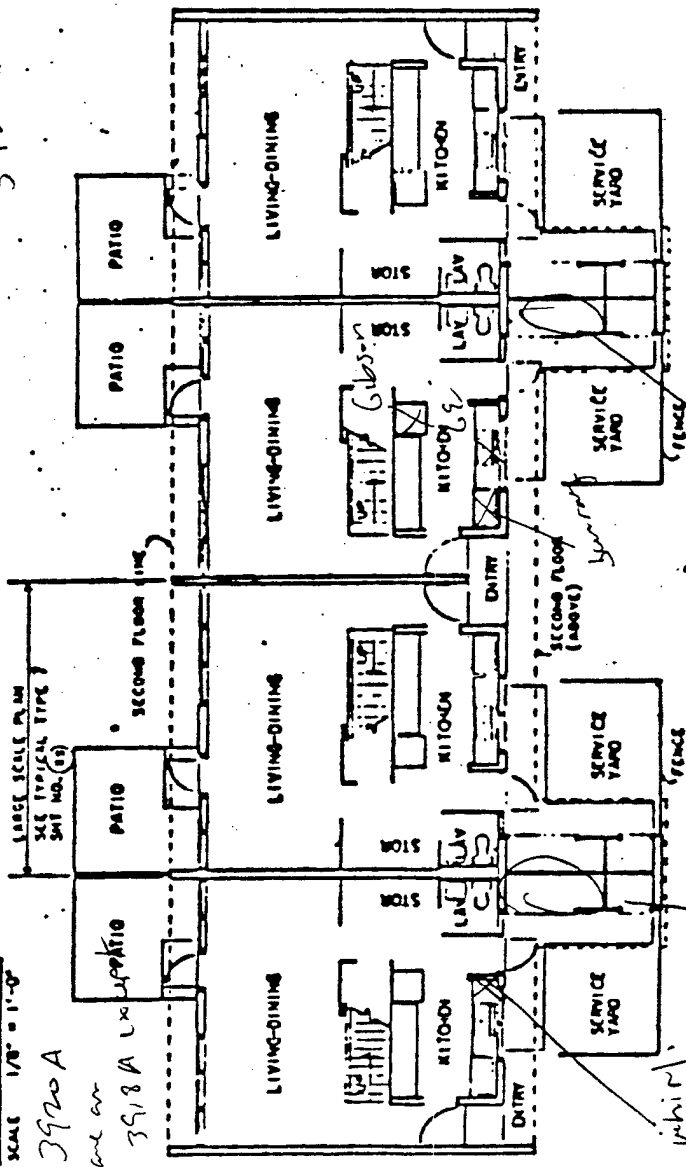
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture  | Flow   | Water Temp. | Remarks |
|----------|--------|-------------|---------|
| K. if SK | 12/105 | 118         |         |
|          |        |             |         |
|          |        |             |         |
|          |        |             |         |
|          |        |             |         |
|          |        |             |         |
|          |        |             |         |
|          |        |             |         |
|          |        |             |         |



3920 A  
Scale on  
39, 8 A  
SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



3920 B  
Scale on  
39, 8 B  
FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

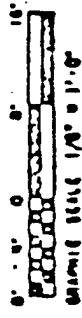
# Type 60-III

## BUILDING NUMBERS

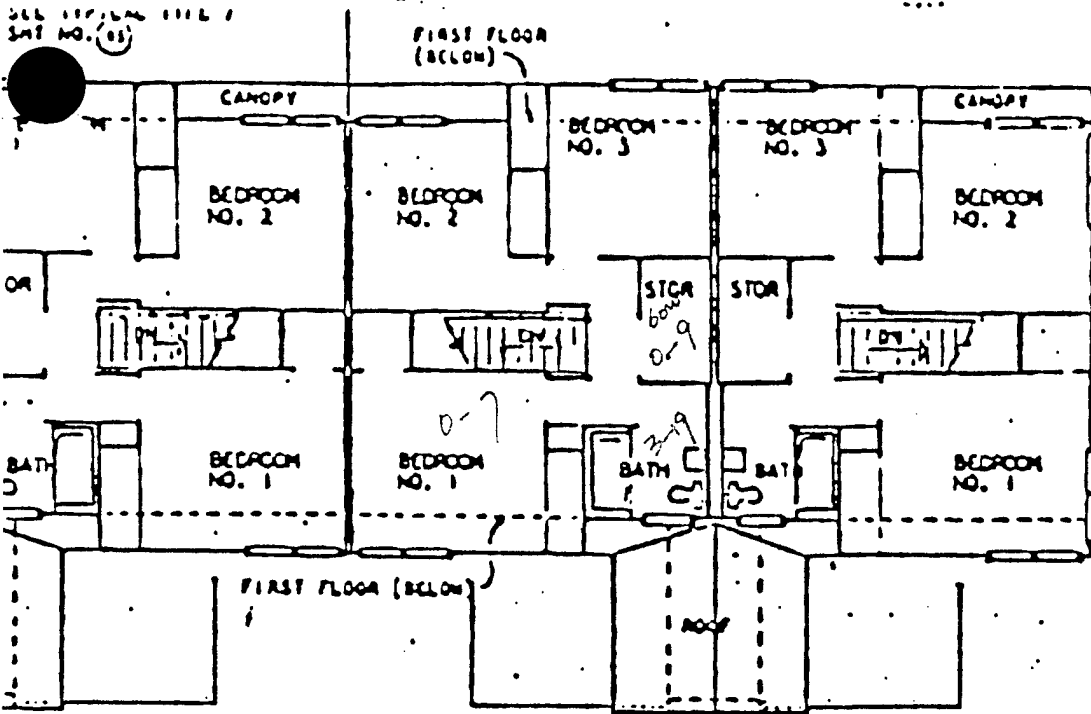
|          |  |
|----------|--|
| AREA K-1 | 3910, 3912, 3920, 3921, 3923   |
| AREA T   | 3925, 3926, 3927, 3928, 3929, 3930, 3931, 3932, 3933, 3934, 3935, 3936, 3937, 3938, 3939, 3940, 3941, 3942, 3943, 3944, 3945, 3946, 3947, 3948, 3949, 3950, 3951, 3952, 3953, 3954, 3955, 3956, 3957, 3958, 3959, 3960, 3961, 3962, 3963, 3964, 3965, 3966, 3967, 3968, 3969, 3970, 3971, 3972, 3973, 3974, 3975, 3976, 3977, 3978, 3979, 3980, 3981, 3982, 3983, 3984, 3985, 3986, 3987, 3988, 3989, 3990, 3991, 3992, 3993, 3994, 3995, 3996, 3997, 3998, 3999, 4000   |
| AREA V   | 4001, 4002, 4003, 4004, 4005, 4006, 4007, 4008, 4009, 4010, 4011, 4012, 4013, 4014, 4015, 4016, 4017, 4018, 4019, 4020, 4021, 4022, 4023, 4024, 4025, 4026, 4027, 4028, 4029, 4030, 4031, 4032, 4033, 4034, 4035, 4036, 4037, 4038, 4039, 4040, 4041, 4042, 4043, 4044, 4045, 4046, 4047, 4048, 4049, 4050, 4051, 4052, 4053, 4054, 4055, 4056, 4057, 4058, 4059, 4060, 4061, 4062, 4063, 4064, 4065, 4066, 4067, 4068, 4069, 4070, 4071, 4072, 4073, 4074, 4075, 4076, 4077, 4078, 4079, 4080, 4081, 4082, 4083, 4084, 4085, 4086, 4087, 4088, 4089, 4090, 4091, 4092, 4093, 4094, 4095, 4096, 4097, 4098, 4099, 4100 |

SEE SITE PLAN SHEETS FOR LOCATION

| REVISIONS                                      | DATE | BY | APP. |
|--|------|----|------|
| FAMILY HOUSING                                 |      |    |      |
| BLOOMINGTON DATA FOR AIR CONDITIONING PROJECTS |      |    |      |
| CAPACITY HOUSING SCHEDULES 1950 MEAS 6-1.1.7   |      |    |      |
| FIRST AND SECOND FLOOR PLANS                   |      |    |      |
| TYPE J   |      |    |      |
| SCHOOL BUILDINGS                               |      |    |      |
| U. S. ARMY ENGINEER, DIVISION, PACIFIC OCEAN   |      |    |      |
| CORPS OF ENGINEERS                             |      |    |      |
| HONOLULU, HAWAII                               |      |    |      |
| LOC. CODE 449                                  |      |    |      |
| NO. 11 OF 11                                   |      |    |      |
| 1950   |      |    |      |



SEE TYPICAL TYPE 7  
SHEET NO. (8)



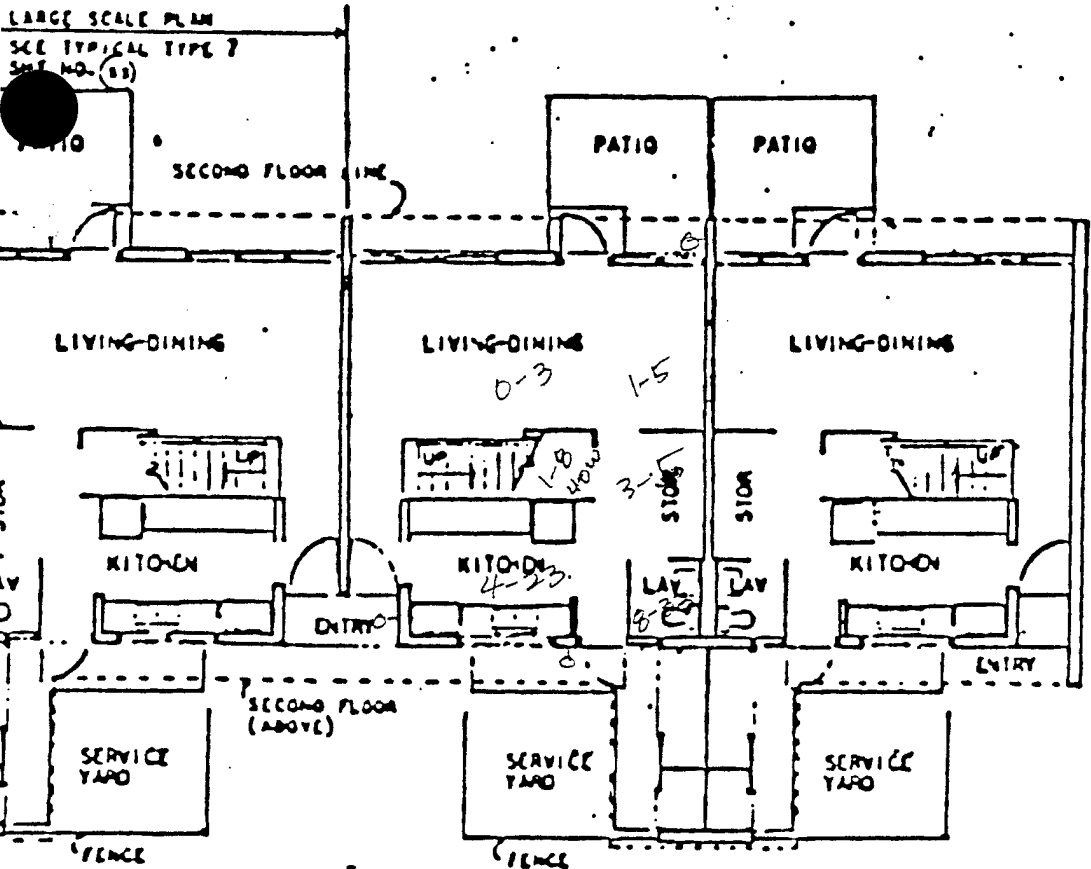
Type 60-I

#### BUILDING NUMBERS

|          |      |      |
|----------|------|------|
| AREA K-1 | 3918 | 3919 |
|          | 3920 | 3921 |
|          | 3922 | 3923 |
|          | 3924 | 3925 |
| AREA T   | 4234 | 4235 |
|          | 4236 | 4237 |
| AREA V   | 1308 | 1309 |
|          | 1310 | 1311 |
|          | 1312 | 1313 |
|          | 1314 | 1315 |
|          | 1316 | 1317 |
|          | 1318 | 1319 |
|          | 1320 | 1321 |
|          | 1322 | 1323 |
|          | 1324 | 1325 |
|          | 1326 | 1327 |
|          | 1328 | 1329 |
|          | 1330 | 1331 |
|          | 1332 | 1333 |
|          | 1334 | 1335 |
|          | 1336 | 1337 |
|          | 1338 | 1339 |
|          | 1340 | 1341 |
|          | 1342 | 1343 |
|          | 1344 | 1345 |
|          | 1346 | 1347 |
|          | 1348 | 1349 |
|          | 1350 | 1351 |
|          | 1352 | 1353 |
|          | 1354 | 1355 |
|          | 1356 | 1357 |
|          | 1358 | 1359 |
|          | 1360 | 1361 |
|          | 1362 | 1363 |
|          | 1364 | 1365 |
|          | 1366 | 1367 |
|          | 1368 | 1369 |
|          | 1370 | 1371 |
|          | 1372 | 1373 |

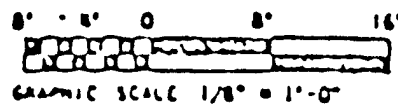
SEE SITE PLAN FOR LOCATION

LARGE SCALE PLAN  
SEE TYPICAL TYPE 7  
SHEET NO. (8)



TYPE 60-II

3918 ABCD  
3919 ABCD  
3920 ABCD  
3921 ABCD



| REVISION                |
|-------------------------|
| FAMILY                  |
| BUDGETARY DATA FOR AIR  |
| EXPENDITURE HOUSING FOR |
| FIRST AND SECOND FLO    |
| SONGFIELD BARRACKS      |
| U. S. ARMY ENGINEER, O  |
| CORPS OF                |
| ENGINEERS               |
| LOC. CODE 8299          |
| 75                      |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3920

Building Type: 60-111

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 60

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as  
60-II

same as 60-II

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

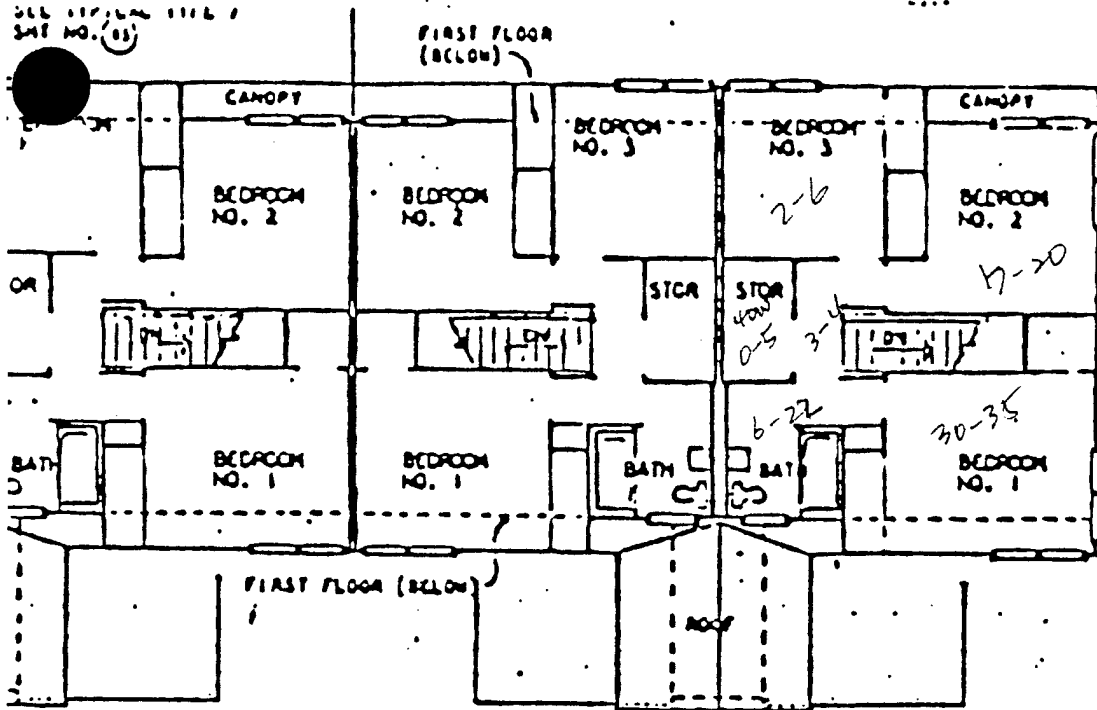
### 3.4 HOT WATER FIXTURES

| Fixture | Flow    | Water Temp. | Remarks |
|---------|---------|-------------|---------|
| Kitchen | 1.5 gpm | 138         |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |
|         |         |             |         |





SEE TYPICAL TYPE 7  
SMT NO. (85)



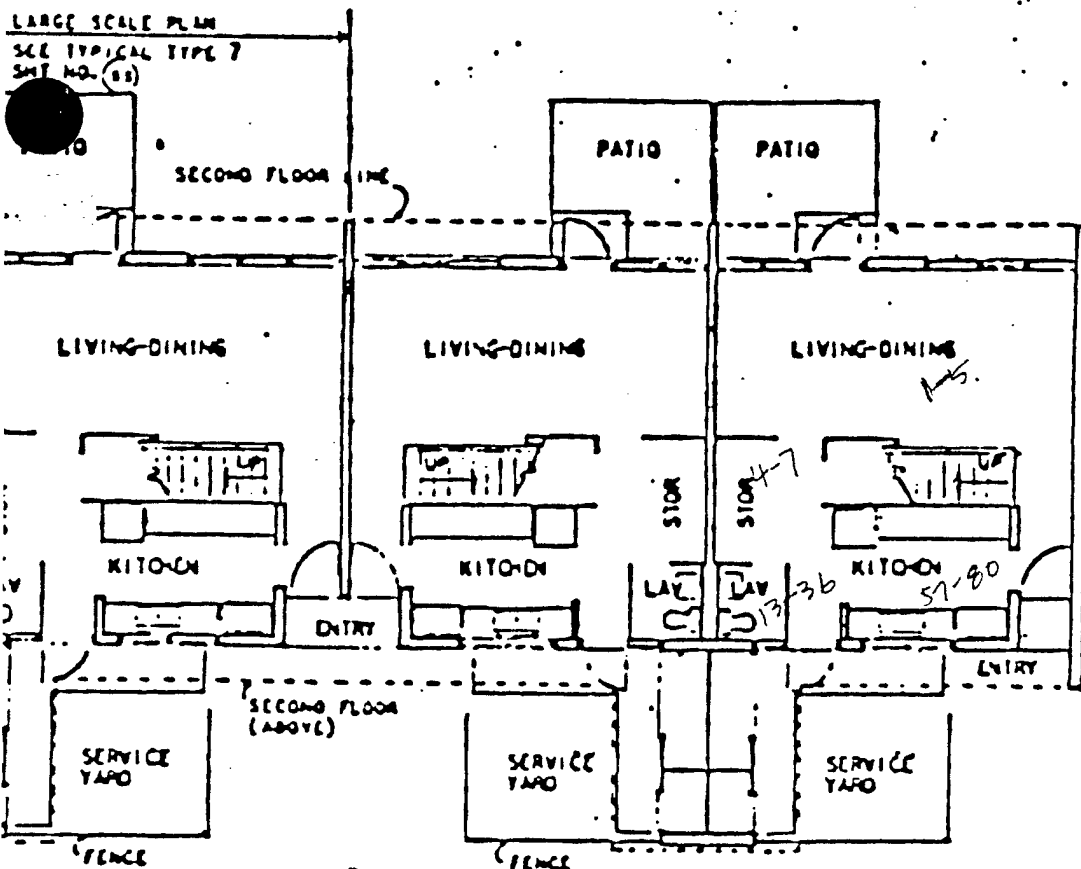
Type 60-I

BUILDING NUMBERS

|          |      |      |
|----------|------|------|
| AREA K-I | 3918 | 3919 |
|          | 3920 | 3921 |
|          | 3922 | 3923 |
|          | 3924 | 3925 |
| AREA T   | 4234 | 4235 |
|          | 4236 | 4237 |
| AREA V   | 1308 | 1309 |
|          | 1310 | 1311 |
|          | 1312 | 1313 |
|          | 1314 | 1315 |
|          | 1316 | 1317 |
|          | 1318 | 1319 |
|          | 1320 | 1321 |
|          | 1322 | 1323 |
|          | 1324 | 1325 |
|          | 1326 | 1327 |
|          | 1328 | 1329 |
|          | 1330 | 1331 |
|          | 1332 | 1333 |
|          | 1334 | 1335 |
|          | 1336 | 1337 |

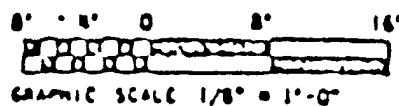
SEE SITE PLAN  
FOR LOCATION

LARGE SCALE PLAN  
SEE TYPICAL TYPE 7  
SMT NO. (85)



TYPE 60-II

3918 ABCD  
3919 ABCD  
3920 ABCD  
3921 ABCD



|                          |    |
|--------------------------|----|
| REVIS                    |    |
| FAMILY M                 |    |
| BUDGETARY DATA FOR AIR C |    |
| CLIMATE HOUSING SOC      |    |
| FIRST AND SECOND FLO     |    |
| SCHOOL BUILDINGS         |    |
| U. S. ARMY ENGINEER, DI  |    |
| CORPS OF I               |    |
| HOUSING                  |    |
| LOC CODE 4799            | 75 |

Date: \_\_\_\_\_  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 3921

Building Type: 60-11

Apartment: D

No. Bedrooms: 3

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: \_\_\_\_\_

No. of Occupants: 4

Average No. of Showers/Day: 10

Average No. of Laundry Loads/Week: 9

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

*Same as  
6. - II*

Window Yes No  
Tinted / /  
Reflective Coating \_\_\_\_\_

*same as  
60-II*

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

\_\_\_\_\_ Central Plant \_\_\_\_\_ One System per Building  
\_\_\_\_\_ Several Small Systems per Building  
\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
\_\_\_\_\_ °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circular \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
  - 1) Storage \_\_\_\_\_
  - 2) Instantaneous \_\_\_\_\_
  - 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

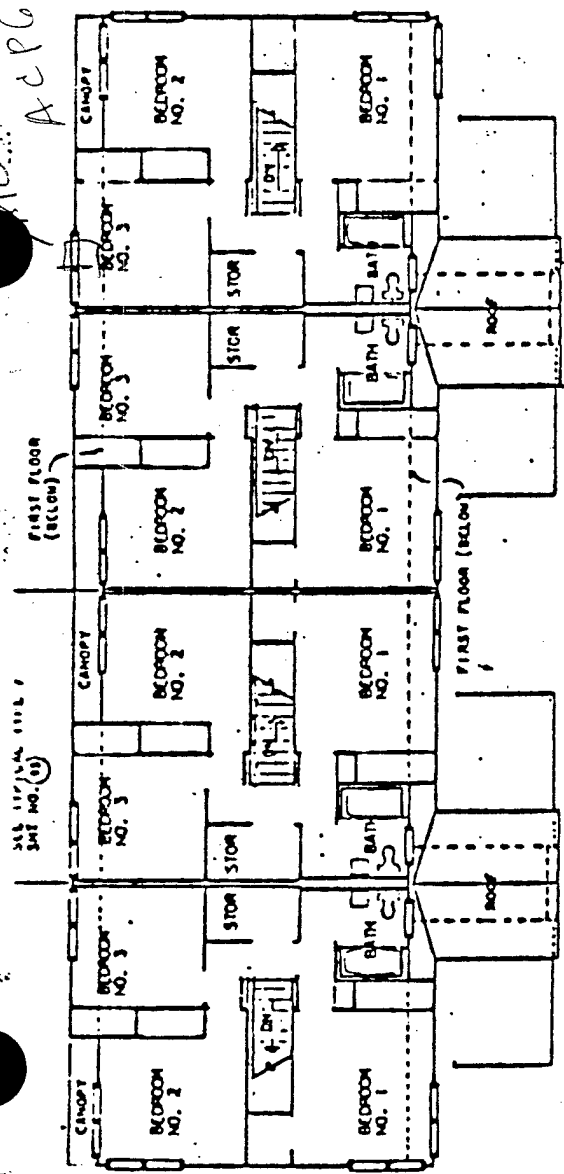
#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

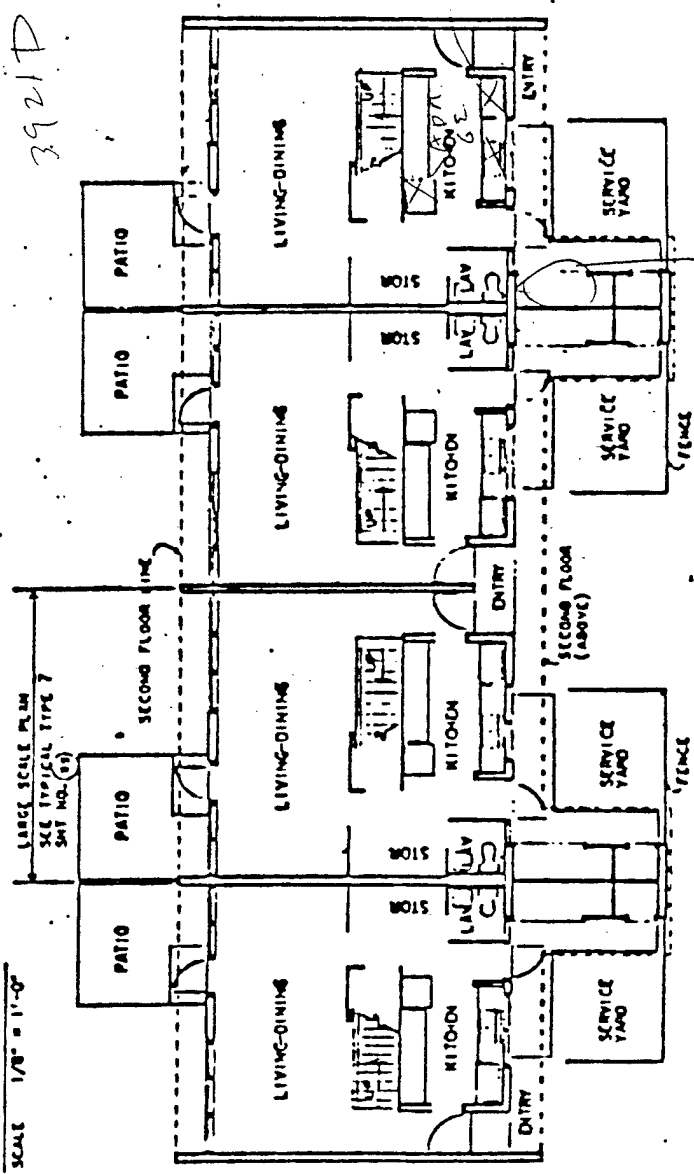
### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kit Sk  | 22/105 | 117         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

AC-Whip  
A.C. P602XP  
6,000 BTU  
EER 8.7



SECOND FLOOR PLAN  
SCALE 1/8" = 1'-0"



FIRST FLOOR PLAN  
SCALE 1/8" = 1'-0"

3921D

Type 60-III

BUILDING NUMBERS

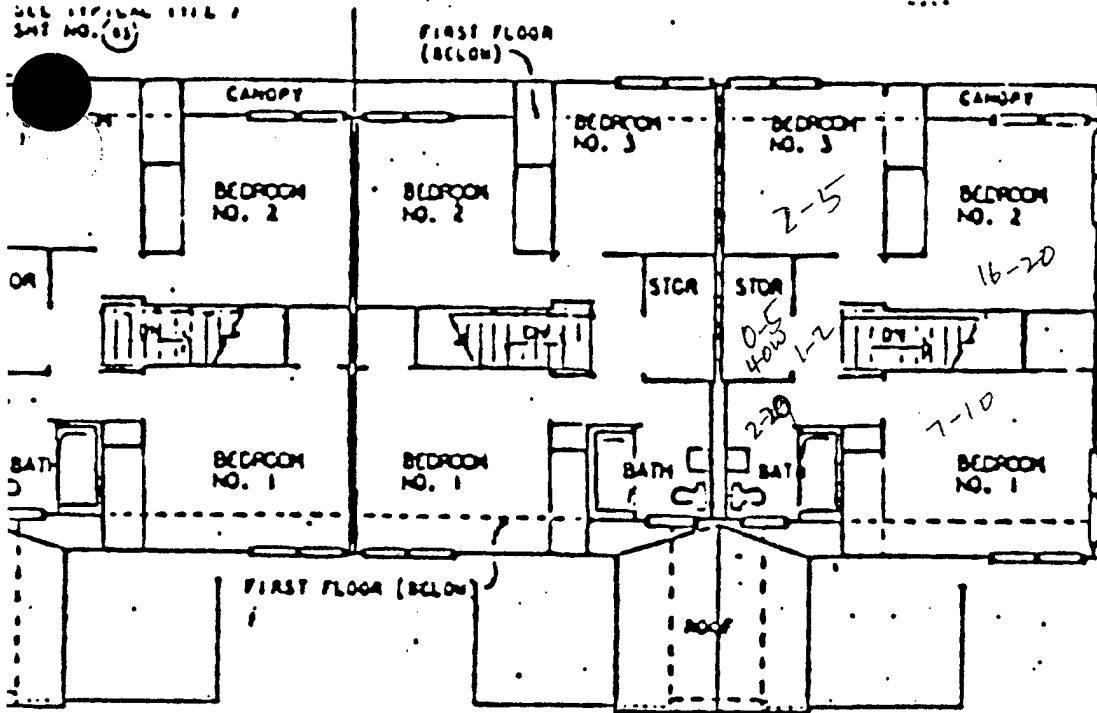
|          |      |      |      |      |      |
|----------|------|------|------|------|------|
| AREA K-1 | 3918 | 3917 | 3920 | 3921 | 3923 |
|          | 3923 | 3926 | 3937 | 3928 | 3929 |
|          | 3930 | 3931 | 3932 | 3933 | 3938 |
|          | 3940 | 3942 | 3943 | 3945 |      |
| AREA T   | 4234 | 4236 | 4238 | 4242 | 4248 |
|          | 4246 | 4248 | 4254 |      |      |
| AREA V   | 1304 | 1305 | 1307 | 1308 | 1309 |
|          | 1311 | 1312 | 1314 | 1315 | 1316 |
|          | 1317 | 1319 | 1320 | 1322 | 1324 |
|          | 1325 | 1326 | 1327 | 1329 | 1332 |
|          | 1333 | 1334 | 1336 | 1337 | 1342 |
|          | 1348 | 1349 | 1348 | 1349 | 1349 |
|          | 1351 | 1352 | 1354 | 1354 | 1360 |
|          | 1362 | 1364 | 1364 | 1364 | 1370 |
|          | 1372 |      |      |      |      |

SEE SITE PLAN SHEETS  
FOR LOCATION

| REVISIONS                                      |                  |
|--|------------------|
| BUDGETARY DATA FOR AIR CONDITIONING PROJECTS   |                  |
| CAPACIT HOUSING SCHEDULES 1960 AREAS E-I, J, V |                  |
| FIRST AND SECOND FLOOR PLANS                   | TYPE 1           |
| 300-CELL BUILDINGS                             | 9-10-11          |
| U. S. ARMY DISTRICT, DIVISION, PACIFIC OCEAN   |                  |
| COMPS OF BUILDINGS                             | NO-0-11, 11-0-11 |
| LOC. CODE 4499                                 | IN 11 OF 11      |

GRAPHIC SCALE 1/8" = 1'-0"

SEE TYPICAL TYPE 1  
SMT NO. (8)



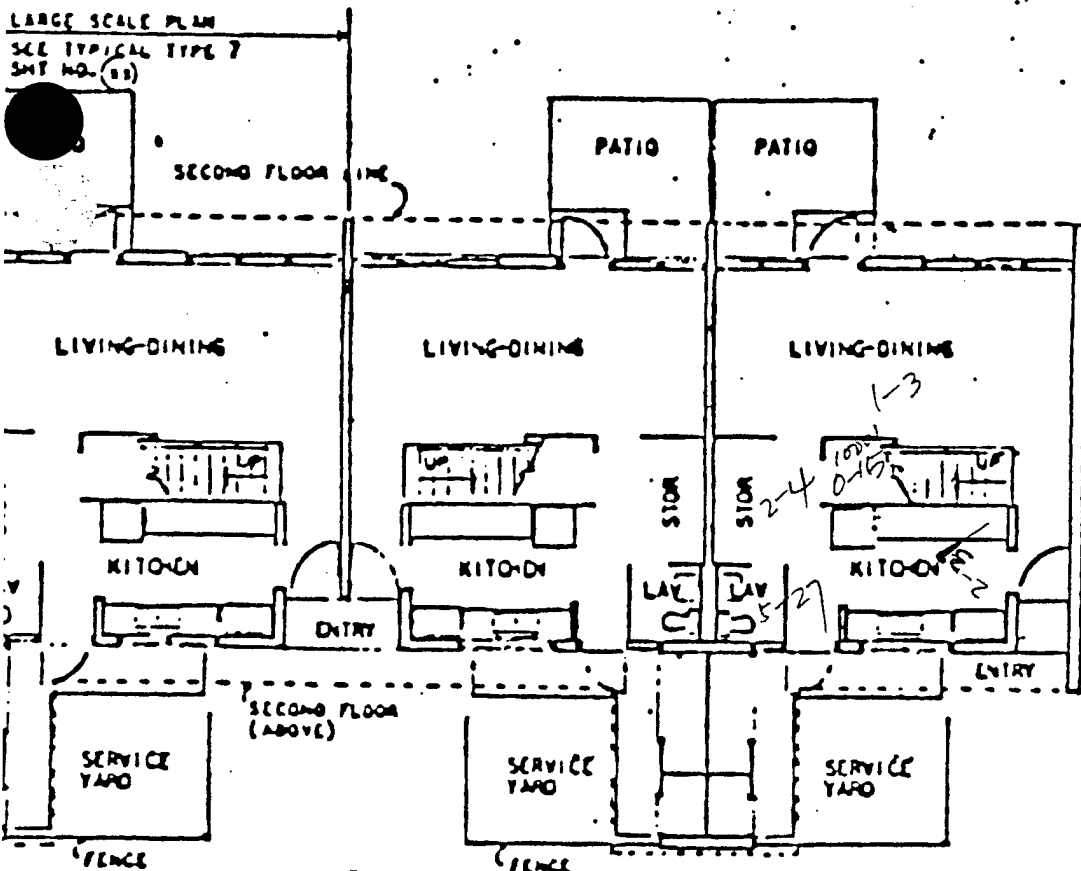
Type 60-I

BUILDING NUMBERS

|          |       |      |
|----------|-------|------|
| AREA K-I | 3918, | 3919 |
|          | 3923, | 3924 |
|          | 3930, | 3931 |
|          | 3940, | 3941 |
| AREA T   | 4234, | 4235 |
|          | 4246, | 4247 |
| AREA V   | 1308, | 1309 |
|          | 1311, | 1312 |
|          | 1317, | 1319 |
|          | 1323, | 1326 |
|          | 1333, | 1334 |
|          | 1348, | 1349 |
|          | 1351, | 1352 |
|          | 1362, | 1364 |
|          | 1372  |      |

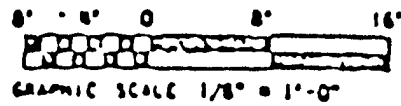
SEE SITE PLAN  
FOR LOCATION

LARGE SCALE PLAN  
SEE TYPICAL TYPE 2  
SMT NO. (8)



TYPE 60-II

- 3918 ABCD
- 3919 ABCD
- 3920 ABCD
- 3921 ABCD



| REVIS                    |    |
|--------------------------|----|
| FAMILY M                 |    |
| BUDGETARY DATA FOR AIR C |    |
| CLERICAL HOUSING SOW     |    |
| FIRST AND SECOND FLO     |    |
| SOWFIELD BARRACKS        |    |
| U. S. ARMY ENGINEER, OI  |    |
| CORPS OF E               |    |
| HOUSING                  |    |
| LOC CODE 8799            | 25 |



UNIT TYPE 71-I

Date: 1/26/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 81

Building Type: 71-I

Apartment: A

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: from 5 pm

No. of Occupants: 4

Average No. of Showers/Day: 4

Average No. of Laundry Loads/Week: 6

Average No. of Times Dishwasher Used/Day: every other day

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Construction

no crawl space under house

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Plaster Cily \_\_\_\_\_

Plaster Wall \_\_\_\_\_

Conc. Ext. Wall \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Wood Roof \_\_\_\_\_

Asphalt Shingle \_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted ✓  
Reflective Coating ✓

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

a. Is System Supported from (check one):

       Central Plant        One System per Building  
       Several Small Systems per Building  
✓ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: 120 °F  
       °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

d. Is Piping System Insulated and Condition: Not visible portion  
Insulation Thickness:       

e. Is Hot Water Circulated? No

- 1) Condition of circular
- 2) Circulator capacity
- 3) Is aquastat provided?
- 4) Aquastat temperature setting
- 5) Mfg/Model
- 6) Electrical Data

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location Laundry Room
- b. Areas Served Entire Unit
- c. Manufacturer and Model Hott Energy Heater Model 985-1
- d. Energy (Oil, Gas, Electric, Coal, Etc.) Gas
- e. Type Heaters & Quantities:
  - 1) Storage ✓
  - 2) Instantaneous
  - 3) Semi-Instantaneous
- f. Heater Size and Storage Capacity 1.6 gal.

- g. Heating Capacity 2250 W  
 h. Type Controls (Air, Steam, Electric) E  
 i. When Installed & Condition good  
 j. Heater Temperature Setting \_\_\_\_\_  
 k. Average Water Maintained Temperature \_\_\_\_\_  
 l. Temperature Differential (j) - (k) \_\_\_\_\_  
 m. Is Hot Water Supply Adequate \_\_\_\_\_  
 n. Insulation Thickness \_\_\_\_\_  
 o. Insulation Material \_\_\_\_\_  
 p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_  
 2) Galons HW/Wash \_\_\_\_\_  
 3) Booster Heater Mfg/Mdl \_\_\_\_\_  
 4) Heating Source \_\_\_\_\_  
 5) Capacity \_\_\_\_\_  
 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_  
 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_  
 3) Gallons HW/Wash \_\_\_\_\_  
 4) Electrical Data \_\_\_\_\_

*see sketch*

### 3.4 HOT WATER FIXTURES

| Fixture | Flow   | Water Temp. | Remarks |
|---------|--------|-------------|---------|
| Kitsk   | 12/105 | 120         |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |
|         |        |             |         |

49'-9"

81A

28'-0"

ES

LA

L/D

BR 4

BR 3

BR 2

K

H

B 2

BR 1

B 1

F

U

FIRST FLOOR

Bldg 81, 83, 85

AREA: SCH-A

ADDRESS: \_\_\_\_\_

4 2 0 B

UNIT TYPE: FY71/IX

SURV: \_\_\_\_\_

DATE: \_\_\_\_\_

TIME IN/OUT: \_\_\_\_\_

Architects

Johnson  
Reese  
Larsen  
Lowrey 50



Date: 1/26/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 51

Building Type: 71-I

Apartment: B

No. Bedrooms: 4

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: ALL DAY

No. of Occupants: 4

Average No. of Showers/Day: 1 per person or 2

Average No. of Laundry Loads/Week: 4

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## 2.0 ARCHITECTURAL

### Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Plaster Ceil'g

Plaster Wall

Conc. Ext. Wall

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

Wood Roof

w/ Asphalt Shingles

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Same as 81A

Same as 81A

Same as 81A

Same as 81A

Same as 81A

Same as 81A

Same as 81A

Same as 81A

Same as 81A

- Same as 81A

Same as 81A

Same as 81A

Same as 81A

Same as 81A

Same as 81A

Same as 81A

- Same as 81A

Same as 81A

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

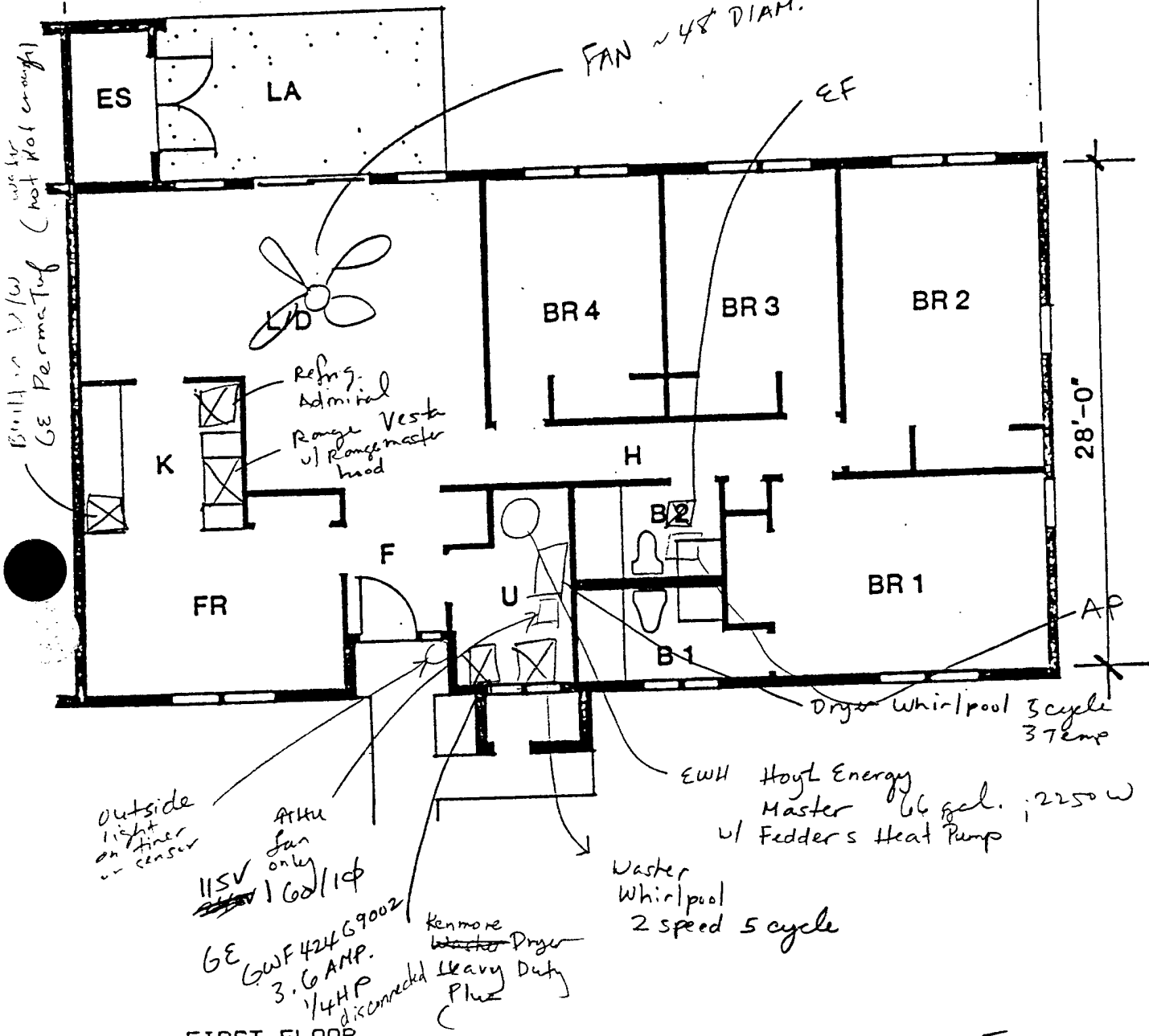
| Fixture | Flow  | Water Temp. | Remarks |
|---------|-------|-------------|---------|
| Kit.    | 22/10 | 118°F       |         |
|         |       |             |         |
|         |       |             |         |
|         |       |             |         |
|         |       |             |         |
|         |       |             |         |
|         |       |             |         |
|         |       |             |         |
|         |       |             |         |
|         |       |             |         |

For 117175

# 81B

49'-9"

28'-0"



FIRST FLOOR

Bldg 81, 83, 85

AREA: SCH-A  
ADDRESS: \_\_\_\_\_

UNIT TYPE: FY71/1X

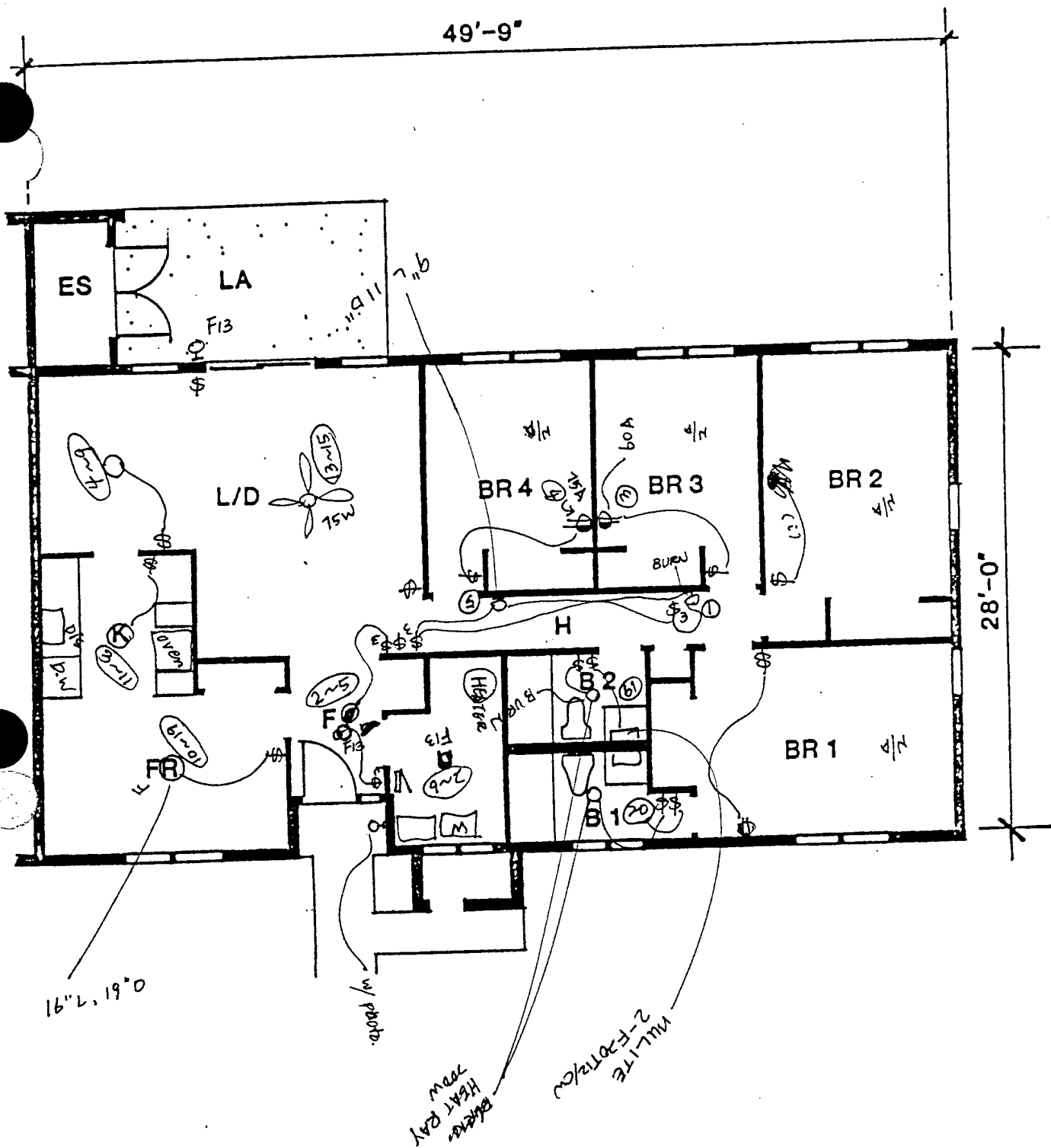
4 2 0 B

SURV: \_\_\_\_\_  
DATE: \_\_\_\_\_  
TIME IN/OUT: \_\_\_\_\_

Architects

Johnson  
Reese  
Luersen  
Lowrey 50

49'-9"



FIRST FLOOR

Bldg 81, 83, 85  
81B

AREA: SCH-A  
ADDRESS: \_\_\_

UNIT TYPE: FY71/IX

SURV: \_\_\_\_\_  
DATE: \_\_\_\_\_  
TIME IN/OUT: \_\_\_\_\_

## Architects

Johnson  
Reese  
Luerzen  
Lowrey 50

Date: 1/26/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 83  
Building Type: 71-I  
Apartment: A  
No. Bedrooms: \_\_\_\_\_  
Area: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Occupied Hours: after 3 pm  
No. of Occupants: 4  
Average No. of Showers/Day: 4  
Average No. of Laundry Loads/Week: 5  
Average No. of Times Dishwasher Used/Day: 1  
Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

*Same as 81*

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted /  
Reflective Coating /

3.0 HOT WATER SYSTEM

3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*same as 81*

- a. Is System Supported from (check one):  
       Central Plant        One System per Building  
       Several Small Systems per Building  
       Individual EWH/Unit
- b. Domestic Hot Water Temperatures provided:        °F  
       °F
- c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:
- d. Is Piping System Insulated and Condition:         
Insulation Thickness:
- e. Is Hot Water Circulated?
- 1) Condition of circulator         
2) Circulator capacity         
3) Is aquastat provided?         
4) Aquastat temperature setting         
5) Mfg/Model         
6) Electrical Data

3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location         
b. Areas Served         
c. Manufacturer and Model         
d. Energy (Oil, Gas, Electric, Coal, Etc.)         
e. Type Heaters & Quantities:  
1) Storage         
2) Instantaneous         
3) Semi-Instantaneous         
f. Heater Size and Storage Capacity



- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

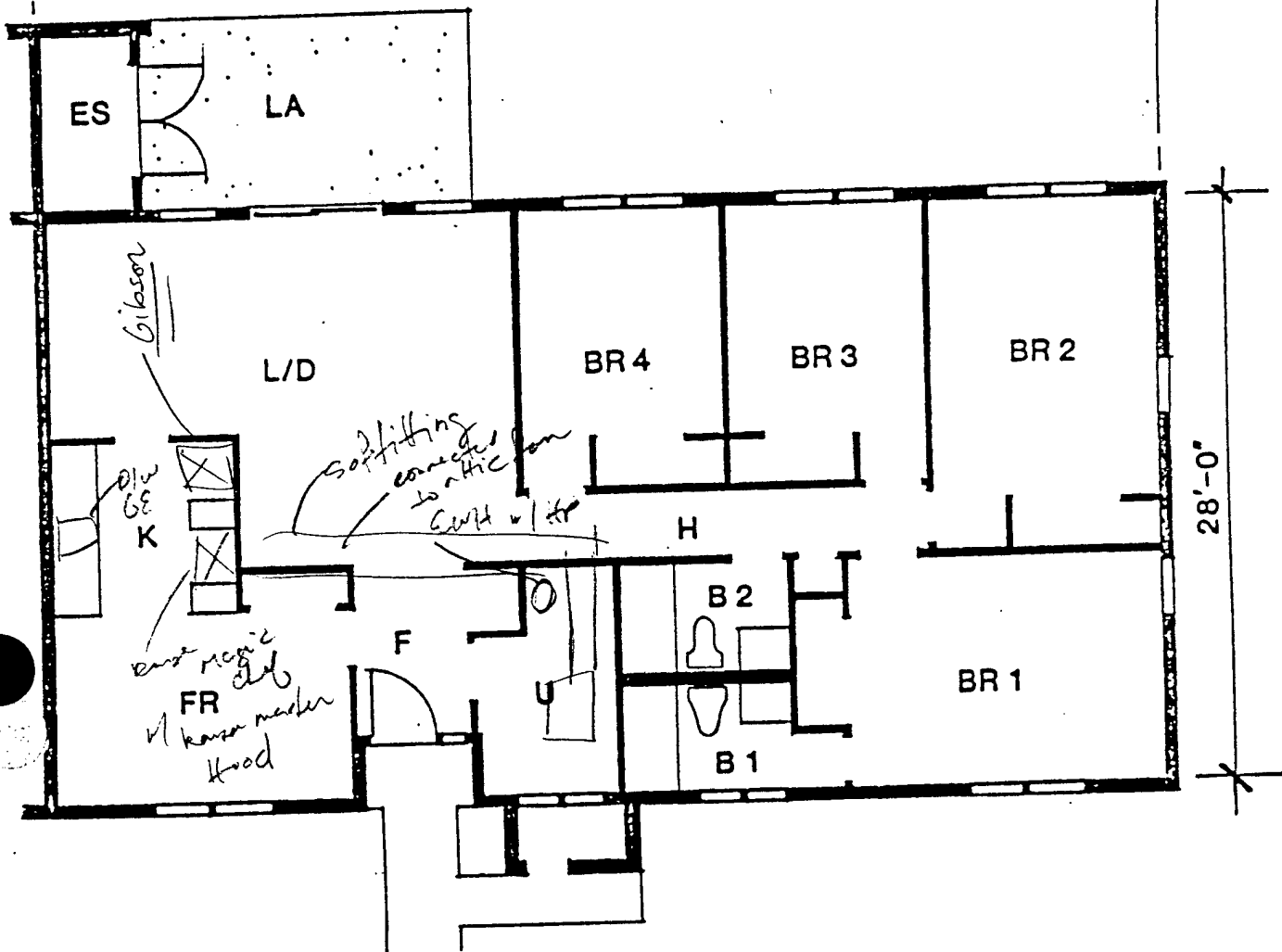
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture         | Flow     | Water Temp. | Remarks |
|-----------------|----------|-------------|---------|
| Bathroom Shower | 1.5l/10s | 112         |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |
|                 |          |             |         |

49'-9"

# 8 3A



FIRST FLOOR

Bldg 81, 83, 85

AREA: SCH-A  
ADDRESS: \_\_\_\_\_

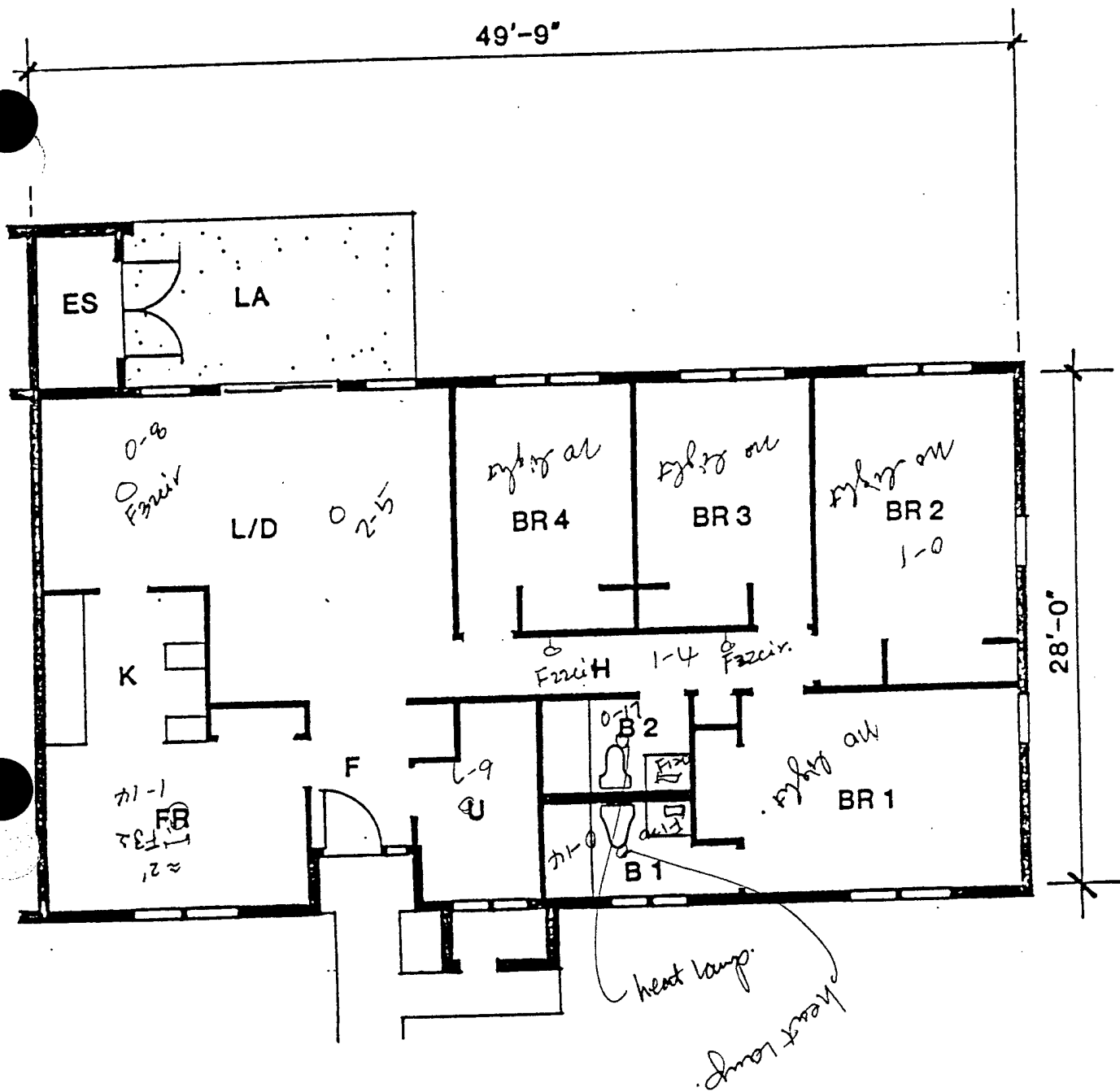
UNIT TYPE: FY71/IX

1 1 1  
4 2 0 B

SURV: \_\_\_\_\_  
DATE: \_\_\_\_\_  
TIME IN/OUT: \_\_\_\_\_

Architects

Johnson  
Reese  
Luerzen  
Lowrey 50



FIRST FLOOR

83A  
Bldg 81, 83, 85  
R

AREA: SCH-A  
ADDRESS: \_\_\_\_\_

UNIT TYPE: FY71/IX

1 1 1  
4 2 0 B

SURV: \_\_\_\_\_  
DATE: \_\_\_\_\_  
TIME IN/OUT: \_\_\_\_\_

ARCHITECTS

Johnson  
Reese  
Luersen  
Lowrey 50

Date: 1/26/90  
Prepared By: \_\_\_\_\_

ENERGY SAVINGS OPPORTUNITY SURVEY FORM

1.0 GENERAL INFORMATION

Building No.: 83

Building Type: 71-I

Apartment: B

No. Bedrooms: \_\_\_\_\_

Area: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Occupied Hours: from 2:30 pm

No. of Occupants: 6

Average No. of Showers/Day: 6

Average No. of Laundry Loads/Week: 12

Average No. of Times Dishwasher Used/Day: 1

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.0 ARCHITECTURAL

Same as 81

Construction

Wall \_\_\_\_\_ Color: D \_\_\_\_\_ H \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Roof (Incl. Clg.) Type: F \_\_\_\_\_ P \_\_\_\_\_  
Color: D \_\_\_\_\_ M \_\_\_\_\_ L \_\_\_\_\_

Material \_\_\_\_\_ Thickness (In.) \_\_\_\_\_ R Value \_\_\_\_\_

Outside Film \_\_\_\_\_

Insulation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Inside Film \_\_\_\_\_

Total

U-Factor \_\_\_\_\_ Area

Window Yes No  
Tinted \_\_\_\_\_  
Reflective Coating \_\_\_\_\_

### 3.0 HOT WATER SYSTEM

#### 3.1 DOMESTIC HOT WATER HEATING EQUIPMENT

*Same as 81*

a. Is System Supported from (check one):

\_\_\_\_\_ Central Plant \_\_\_\_\_ One System per Building  
\_\_\_\_\_ Several Small Systems per Building  
\_\_\_\_\_ Individual EWH/Unit

b. Domestic Hot Water Temperatures provided: \_\_\_\_\_ °F  
\_\_\_\_\_ °F

c. Average Pipe Sizes of All HW Piping and Approximate Run of Each:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Is Piping System Insulated and Condition: \_\_\_\_\_  
Insulation Thickness: \_\_\_\_\_

e. Is Hot Water Circulated? \_\_\_\_\_

- 1) Condition of circulator \_\_\_\_\_
- 2) Circulator capacity \_\_\_\_\_
- 3) Is aquastat provided? \_\_\_\_\_
- 4) Aquastat temperature setting \_\_\_\_\_
- 5) Mfg/Model \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### 3.2 DOMESTIC HOT WATER HEATING EQUIPMENT (If more than one location, list each one)

- a. Location \_\_\_\_\_
- b. Areas Served \_\_\_\_\_
- c. Manufacturer and Model \_\_\_\_\_
- d. Energy (Oil, Gas, Electric, Coal, Etc.) \_\_\_\_\_
- e. Type Heaters & Quantities:
  - 1) Storage \_\_\_\_\_
  - 2) Instantaneous \_\_\_\_\_
  - 3) Semi-Instantaneous \_\_\_\_\_
- f. Heater Size and Storage Capacity \_\_\_\_\_

- g. Heating Capacity \_\_\_\_\_
- h. Type Controls (Air, Steam, Electric) \_\_\_\_\_
- i. When Installed & Condition \_\_\_\_\_
- j. Heater Temperature Setting \_\_\_\_\_
- k. Average Water Maintained Temperature \_\_\_\_\_
- l. Temperature Differential (j) - (k) \_\_\_\_\_
- m. Is Hot Water Supply Adequate \_\_\_\_\_
- n. Insulation Thickness \_\_\_\_\_
- o. Insulation Material \_\_\_\_\_
- p. Timeclock and Hrs Set \_\_\_\_\_

### 3.3 HW USING APPLIANCES

#### a. Dishwasher

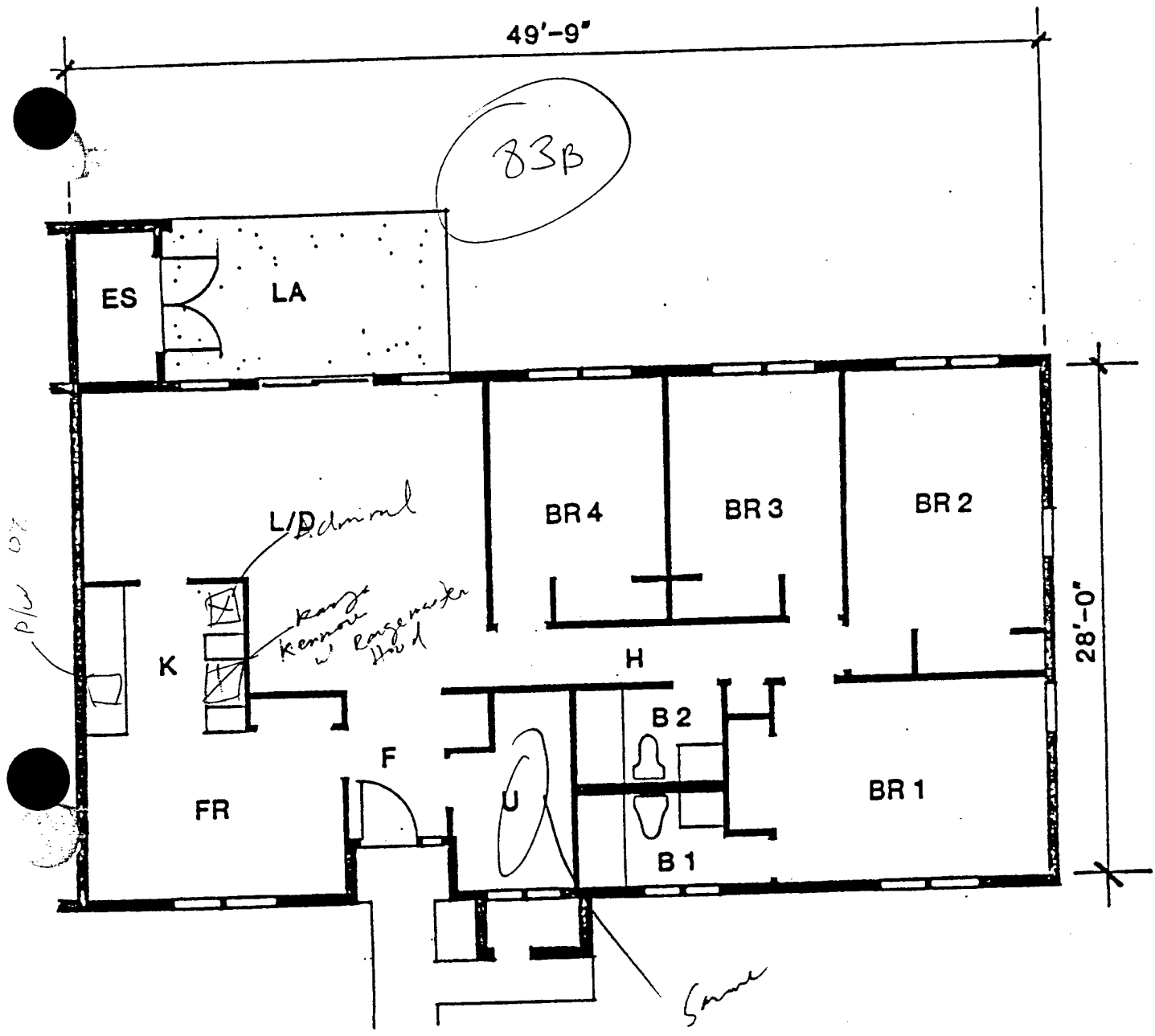
- 1) Mfg/Mdl \_\_\_\_\_
- 2) Galons HW/Wash \_\_\_\_\_
- 3) Booster Heater Mfg/Mdl \_\_\_\_\_
- 4) Heating Source \_\_\_\_\_
- 5) Capacity \_\_\_\_\_
- 6) Electrical Data \_\_\_\_\_

#### b. Clothes Washer

- 1) Mfg/Mdl \_\_\_\_\_
- 2) Setting: Hot \_\_\_\_\_ Warm \_\_\_\_\_ Cold \_\_\_\_\_
- 3) Gallons HW/Wash \_\_\_\_\_
- 4) Electrical Data \_\_\_\_\_

### 3.4 HOT WATER FIXTURES

| Fixture     | Flow     | Water Temp. | Remarks |
|-------------|----------|-------------|---------|
| Kit Sk.     | 1.52/105 | 116         |         |
| Shower (B2) | 32/105   | 112         |         |
|             |          |             |         |
|             |          |             |         |
|             |          |             |         |
|             |          |             |         |
|             |          |             |         |
|             |          |             |         |



FIRST FLOOR

Bldg 81, 83, 85

AREA: SCH-A  
ADDRESS: \_\_\_\_\_

UNIT TYPE: FY71/IX

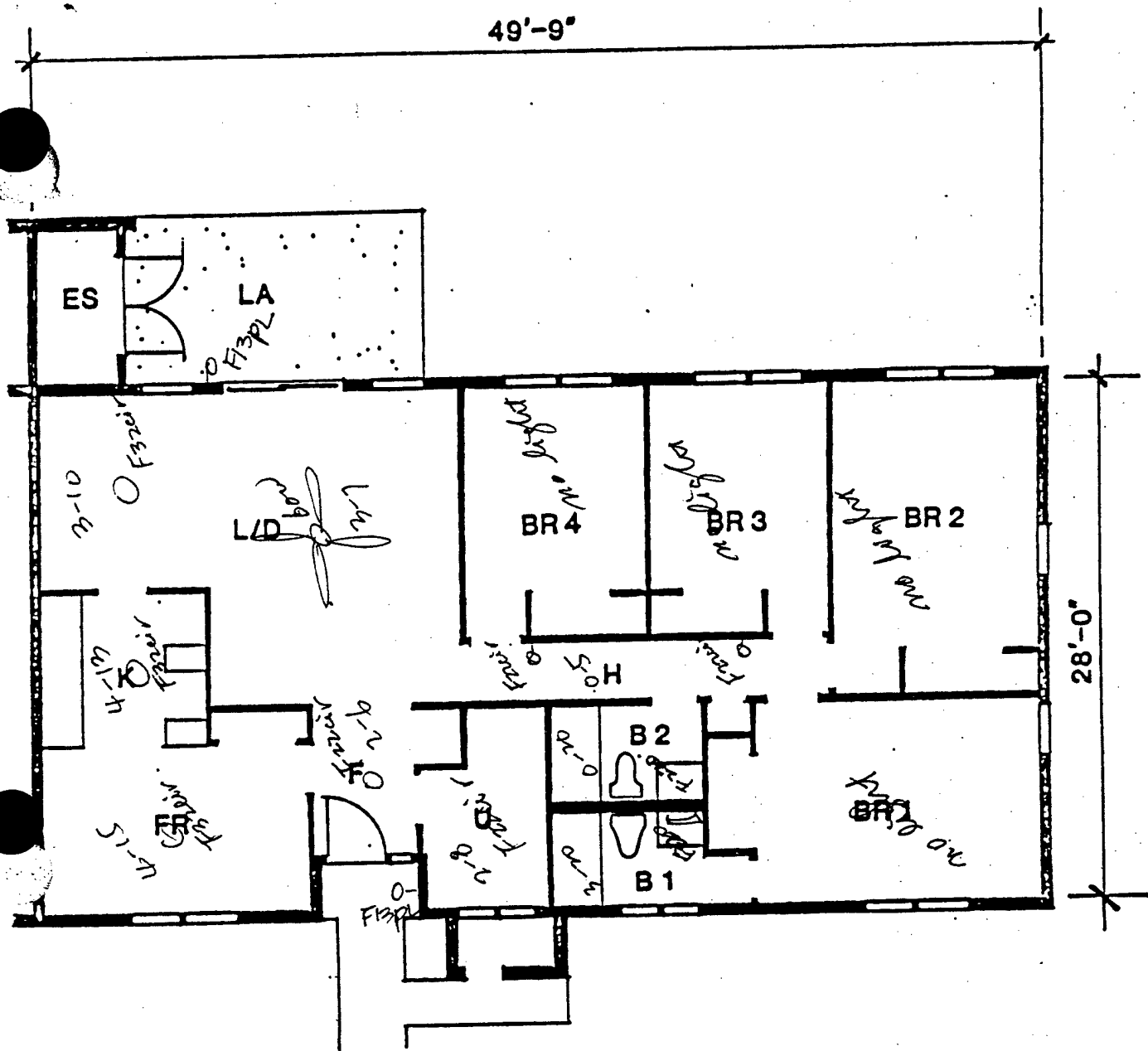
4 2 0 B

SURV: \_\_\_\_\_  
DATE: \_\_\_\_\_  
TIME IN/OUT: \_\_\_\_\_

Architects

Johnson  
Reese  
Luerzen  
Lowrey 50





Bldg 83 B  
81, 83, 85

SURV: \_\_\_\_\_  
DATE: \_\_\_\_\_  
TIME IN/OUT: \_\_\_\_\_

Johnson  
Reese  
Luerzen  
Lowrey 50